

WAR PROGRESS

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
EG. 11862, Sec. 5(E) and 6(D) of (R)
Commanco Dept. Letter, 11-16-73
By JME, JMS / MAR 14 1973

Economic Data
Special Articles

WAR PROGRESS

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 3(K) and 6(D) or (E)
Defense Dept. Letter, 12-15-72
BY 1002, RCR

Economic Data
Special Articles

L. F.
War Production Board

WAR PROGRESS

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 5(D) or (E)
Commerce Dept. Letter, 11-11-72
By RHP, Date **MAR 14 1973**

Critical Production Moves Along

x4735
x4675

Number 232

February 24, 1945

Form GA-96-6B (3-29-44)		UNITED STATES OF AMERICA WAR PRODUCTION BOARD		No. S- 86978	
R		COURIER SERVICE CONTROL RECORD			
FROM: STATISTICS DIVISION (DIVISION OR OFFICE)		TO: The President (DIVISION OR OFFICE)			
RCS (NAME)		(NAME)			
(ROOM NUMBER) BUILDING		The White House (ROOM NUMBER)		(BUILDING)	
DESCRIPTION OF DOCUMENT:					
				WP 232	3
				#1	
COPY 3 Addressee's Copy		THE SERIAL NUMBER IN THE UPPER RIGHT-HAND CORNER SHOULD BE IDENTICAL TO NUMBER ON SENDER'S RECEIPT			

470 16-27527-8

WAR PROGRESS

Prepared in the War Production Board

J. A. Krug, Chairman

War Progress is a confidential report designed to provide a coordinated and continuing picture of the overall war program for the various war agencies. To this end, it presents, analyzes, and interprets basic statistical and economic information, and from time to time examines the pros and cons of controversial questions.

Although War Progress is an official publication of the War Production Board, statements in it are not to be construed as expressing official attitudes of the Board as a whole, or even of individual members. Conclusions, whenever reached, should be considered editorial conclusions.

War Progress is prepared by the Reports
Division (Joseph A. Livingston, Director).

EDITORIAL STAFF

Thomas A. Falco, Roy T. Frye (drafting), Winona Hibbard, A. R. Hillard, Morris Katz, Chester L. Kieffer, Joseph A. Livingston (editor), Martha Menaker, J. S. Werking (production).

This report contains CONFIDENTIAL information affecting the defense of the United States. See inside back cover for rules of custody.

Broad Gains on Critical Front

December pace maintained as output of Super-ports, duck, tires rises to new peaks—evidence that resources are going to most-urgent programs. Total production sags.

WAR PRODUCTION in January was at the lowest level in 18 months, continuing in the \$4,800,000,000-to-\$5,100,000,000 band (revised figures: box, page 5) that has prevailed since mid-1944. And the task of pushing through that band becomes increasingly difficult in the face of fairly general manpower shortages.

Although in December employment in munitions industries rose 50,000, breaking a 12-month downtrend, last month employment was unchanged. "Must" plants gained employees but these gains were offset by declines elsewhere. Inability to expand working forces has been restricting production of such basic raw materials as steel, coal, lead, chemicals, lumber.

Reflecting the standstill in employment, munitions output at 4,815,000,000 (preliminary) was 2% below schedule and 1% below December.

NOT WEATHERPROOF

Weather also worked against a good record. Snow impeded railroad traffic and made it harder for workers to get to their jobs, thus resulting in increased absenteeism. In the case of airplanes, many went undelivered because flight tests were not feasible. Planes so held up will appear in the February figures.

Cold weather made it necessary to use abnormal amounts of natural gas for home heating, cutting into the supply available for industrial purposes. This

affected the output of castings, trucks, and tanks. Freight tie-ups of coal forced the reduction of steel output. These contractions—at the raw-material and semifinished-product level—will affect this month's and next month's deliveries of finished products.

BIG GAINS

Production of critical items continued to score big gains. True, the total increase in December was only 6%, but that was because of the reorientation of both the tank and heavy-heavy truck programs. January schedules in each (as will be noted specifically later) called for reductions. If tanks and trucks are excluded, then critical production last month was up 11%, the same as in December.

This is again evidence of the momentum developed in these programs since November, when the War Production Board, the War Manpower Commission, Army, Navy, and other agencies began holding special meetings and appointed task committees to go to work on each critical program. These committees were charged with the responsibility of finding out what was holding up production and why—then doing something about it.

It is clear that the committees' work has produced results, that the nation's materials, components, energy, and imagination are being channeled into the urgent programs. But these programs, it cannot be emphasized too strongly, have the highest priority and manpower ratings; they get directive treatment and hence they "take away" from the less urgent programs.

Moreover the gains, though impres-

sive, are not up to the goals or requirements. Production of critical items was 4% under schedule. And the schedules, in some cases, have been reduced to levels of feasibility, hence are below strategic requirements. Here is the January score:

	% Above or Below	
	Dec.	Sched.
Critical aircraft.....	+12%	-13%
Critical am., ASF.....	+15	+2
Critical art. & materials, ASF, ind. items.	+21	-5 to 30
Navy rockets.....	+27	0
Navy HC am.	+5	+2
Airborne radar.....	+3	-1
Field & assault wire...	+11	-1
Tanks.....	-23	+6
Heavy-heavy trucks, ASF	-20	-5
Light-heavy trucks, ASF	-4	-5
Military dry-cell batteries.....	+19	-17
Cotton duck.....	+33	+13
Truck & bus tires.....	+30	+13
Total.....	+6%	-4%
Total excl. tanks, H-H trucks.....	+11%	-4%

Three gains last month are particularly noteworthy:

IN THIS ISSUE:

BROAD GAINS ON CRITICAL FRONT	1
AIRCRAFT	4
ARMY ORDNANCE	6
NAVAL ORDNANCE	9
SIGNAL EQUIPMENT	10
NAVAL SHIPS	10
MARITIME SHIPS	11
BENZENE	11
TRUCK AND BUS TIRES	12
REVISED MUNITIONS FIGURES	5
PRODUCTION PROGRESS PRELIMINARY	9
KEY STATISTICS OF THE WEEK	12

1. Superfortresses reached another new high and beat schedule for the third successive month.

2. Production of cotton duck, including tent twills, reached an all-time high at 72,500,000 yards, or more than double the rate of June. This has been a long, hard pull to re-reconvert an industry to production of a war product after it had already converted back to civilian-type fabrics or had shut down. It was a case of getting yarn, getting looms, and getting workers all over again.

3. In tires, WPB meetings with manufacturers have produced outstanding results. Manufacturers have managed to rearrange their equipment or to install minor additions in jig time—much faster than originally anticipated. Last month's above-schedule gain is the proof.

MORE GOING THAN COMING

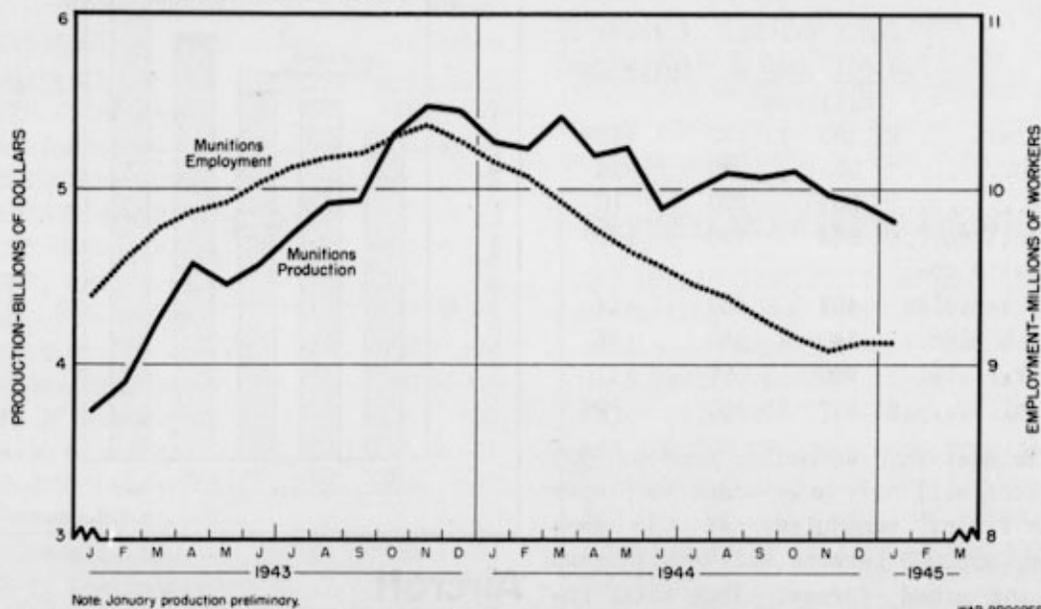
The manpower shortage has become all-pervasive. To be sure, many programs are held up because of lack of facilities, or design changes. And sudden increases in requirements and schedules make for minus signs in the monthly figures. But as Selective Service requirements keep whittling into the labor supply—above the rate of new entrants—the manpower pinch tightens.

Shortages not only are cropping out in the "must" plants, but in plants making machinery for the "must" programs (braiding and stranding machines for communication wire, for instance) and in raw materials (steel, for instance). The steel operating rate has rebounded from its 90% level to 96%—or back to where it was before the heavy snows in January. Nevertheless, newly required production cannot be obtained without increased employment.

Aluminum is a case in point. When potlines were shut down, workers scat-

MANPOWER DROP CHECKED, NOT SO MUNITIONS

Labor shortages still dog war industries despite increase in employment in December and "stabilization" last month.



tered to other war jobs, to nonwar jobs, or they quit the labor market altogether. The capacity is available but not the labor, and the task is to remuster a working force for expanded operations.

MELTING COAL PILES

The big problem in war production is a contingency—the possibility of a coal strike. The nation has about a 30-days' above-ground supply (as against a 45-days' supply two years ago), but the stocks are unevenly spread, as recent events proved. Some companies have only a few days' inventories. (To keep a big stockpile takes manpower and equipment to recover the coal from deep bins; it's almost like mining it all over again.) So any interruption of the flow means an interruption of production.

The problem for war agencies is to focus attention of the public on the need for an uninterrupted supply of coal

—to tie in the responsibility of miners and operators during their negotiations with the needs of the men on the battlefield. This calls for a high-powered public relations campaign to show what a ton of coal means to the man in the foxhole. Coal is more than a fuel. Coal shortages, for instance, will cut the benzene supply, which in turn eats into aviation gasoline and explosives output (page 11).

COAL REQUIREMENTS

Aside from a strike, coal is tight. Bituminous requirements for 1945 run to 620,000,000 tons, but production estimates are 590,000,000 tons—some 40,000,000 tons below last year's all-time record. The drop is due to manpower shrinkage—shrinkage which has already occurred and is likely to continue (WP-Feb 3 '45, p1).

The overall manpower problem, per-

haps, can best be measured by the production job. Between now and the second quarter, munitions output must rise about 9%. All programs except ships rise. Here are the figures:

	Jan. Output	Av. Mo. 2nd Q. (millions)	% Above or Below Jan.
Aircraft.....	\$1,189	\$1,370	+15%
Ships.....	970	830	-14
Guns.....	251	270	+8
Ammunition...	644	730	+13
Combat & motor vehicles	463	530	+14
Com. & elec..	340	430	+26
Other.....	960	1,070	+11
Total.....	\$4,817	\$5,230	+9%

To meet this schedule, some 600,000 workers will have to be added to plants with rising schedules. At the same time, 900,000 persons will be withdrawn by the armed forces. Thus total requirements are 1,500,000 by June.

To meet this drain, there will be:

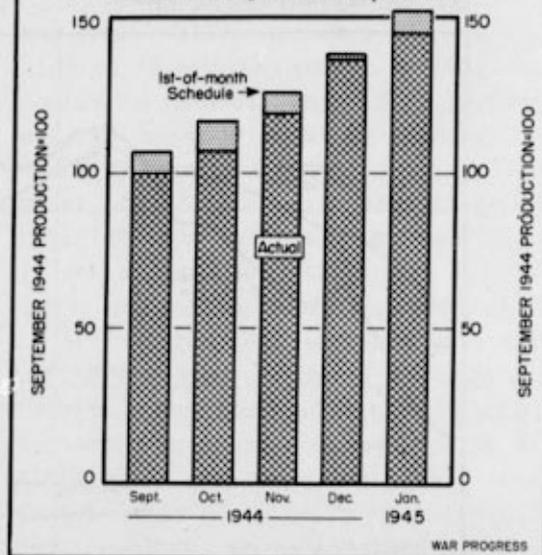
1. Some 400,000 workers released from war plants where they are no longer needed, either because of increased productivity or declining schedules.
2. Some 300,000 new entrants to the labor market. (This is net—1,000,000 will enter as 700,000 die or retire.)
3. Some 400,000 veterans released from the armed forces

However, not all of these 1,100,000 will go where they are most needed. When workers are laid off, evaporation takes place (people retire from the labor market or take nonwar jobs). Moreover, even if this supply were used most economically and efficiently, there would still be a 400,000 shortage of workers. They'll have to come from non-war activities.

Thus production during the first half of 1945 might well be summed up as "The Coming Struggle for Manpower."

STEADY PROGRESS

Critical programs gain monthly, are now 45% above Sept. level.



Aircraft

AIRCRAFT production in January did not make the upturn called for by the new W-13 program. At \$1,189,000,000 it beat December by only 1% and missed schedule by 4%. In consequence, the climb ahead is steeper. Whereas W-13 originally called for an average rise of 2% per month between January and June, now 3% will be required.

Production of critical aircraft items continued to advance sharply, in keeping with steep schedules. At \$313,006,000 it was 12% over December. However, the goal was missed by 13%. Critical schedules now call for an average climb of 20% per month to June (chart, page 7).

Design problems added three new items to the critical list—the Bearcat, Corsair, and jet-propulsion engine. Patrol bombers—the Catalina and Harpoon—beat schedule for the first time in a year, but the schedules had been reduced for feasibility. The Superfortress beat schedule for the third straight month.

At the other end of the scale, none of the five scheduled test models of the Shooting Star came through. The critical record follows:

Critical Aircraft	Jan. Accept.	% Above or Below	
		Dec.	Sched.
PBY Cataline.....	10	+25%	+43%
PV-2 Harpoon.....	68	+209	+10
B-29 Superfort...	221	+16	+3
R-3350BA engine..	2,017	+7	+1
TBY Seawolf.....	8	+700	0
F8F, F3M Bearcat..	2	∞	0
Jet-propulsion engine.....	38	+73	-14
C-54 Skymaster...	56	+6	-16
FR Fireball.....	4	∞	-20
A-26 Invader.....	160	-6	-36
P-47N Thunderbolt	125	+84	-41
F4U-4, FG-4 Corsair.....	44	+780	-60
B-32 Dominator...	7	-42	-65
P-80 Shooting Star	0	-100	-100

A catalogue of difficulties beset the aircraft industry last month. Bad weather, which prevented flight testing of completed planes, was responsible for a deficit of 73 Corsairs at Goodyear, Akron; and these planes may be expected to swell the acceptance totals in future months.

WEATHER, CHANGES

Weather also was a factor in holding up Invaders and Thunderbolts; but here a second typical difficulty—model change-over—was more important. Douglas, Tulsa, is still having trouble with the new cockpit canopy of the Invader and has been forced to rework engines; Republic, Farmingdale, is having trouble with the new wing of the Thunderbolt; and Douglas, Santa Monica, changing over to the new personnel version of the Skymaster, has missed its monthly schedule for the first time in more than a year.

Engineering problems characteristic of new models are holding down Dominator acceptances, although planes are rolling off the lines on schedule at Consolidated Vultee, Ft. Worth. Dominator schedules for 1945 have been cut from 789 to 529 planes, because of the delay in working up to quantity production. Design problems in an extreme form may be expected to make further trouble for

REVISED MUNITIONS FIGURES

THE DOLLAR STATISTICS on munitions production have been revised—due mainly to an adjustment in costs. As a result, production in 1944 totaled \$61,300,000,000 instead of the \$63,600,000,000 previously recorded. Similarly, 1945 now looks like a \$62,000,000,000 year (estimated as of February 1) instead of \$65,400,000,000:

Year	Revised Data
1943.....	\$56,400,000,000
1944	61,300,000,000
1945	62,000,000,000

The change was chiefly in aircraft. Here's how the major groups compare for 1944 and 1945 (billions of dollars):

	Jan. '45		
	1944	Ann. Rate*	1945
	(revised data)		
Aircraft....	\$16.7	\$14.3	\$16.7
Ships.....	13.8	11.6	9.3
Guns & fire control....	3.4	3.0	2.8
Ammunition..	6.7	7.7	9.8
Combat & motor veh. ..	5.4	5.6	6.6
Com. & elec.	4.2	4.1	4.5
Other equip. & sup.	11.1	11.5	12.3
Total.....	\$61.3	\$57.8	\$62.0

* Preliminary

the revolutionary new jet engine and the two planes that use it: the Army's Shooting Star and the Navy's Fireball.

The ability of plane manufacturers to absorb design changes will continue to be an important factor in meeting W-13 acceleration. Addition of the Bearcat, the improved Corsair, and jet-propelled engines may be but a 1945 beginning. Ford, for instance, must shift to the radically new B-24N Liberator; and North American, Inglewood, will soon be changing to the P-51H Mustang with its more powerful Merlin engine.

Significant employment gains were registered during January at the three plants where manpower shortages are most serious. At Boeing, Renton and Seattle, interregional recruitment has been successful and 1,200 workers were added (WP-Feb10'45,p9). Even though interregional recruitment was halted in December, new hires at Douglas, Chicago, are still averaging 200 a week, which is as many as the plant can absorb. Employment at Ryan, San Diego, increased from 6,500 on December 29 to 7,600 on January 26.

AGAINST ODDS

The W-13 schedule will call for something like a 3% overall employment gain between now and June, in the face of a Selective Service drain. A preliminary survey of AAF plants on the National Production Urgency List indicates that some 70,000 employees are men between 26 and 29, not 4Fs, and that some 20,000 of these are supervisory personnel. In many plants the proportion of supervisory and engineering personnel in this category is far higher. Almost the entire engineering staff working on the jet-propelled Fireball at Ryan consists of men under 30. Practically all plants need more engineers. Draft regulations will help to defer some of these key

workers, but the job of holding supervisory and skilled men will be tough.

Army Ordnance

GROUND ARMY munitions production remained at the December level chiefly because reduced schedules for combat and motor vehicles resulted in a sharp decline in output for this group.

TRUCKS

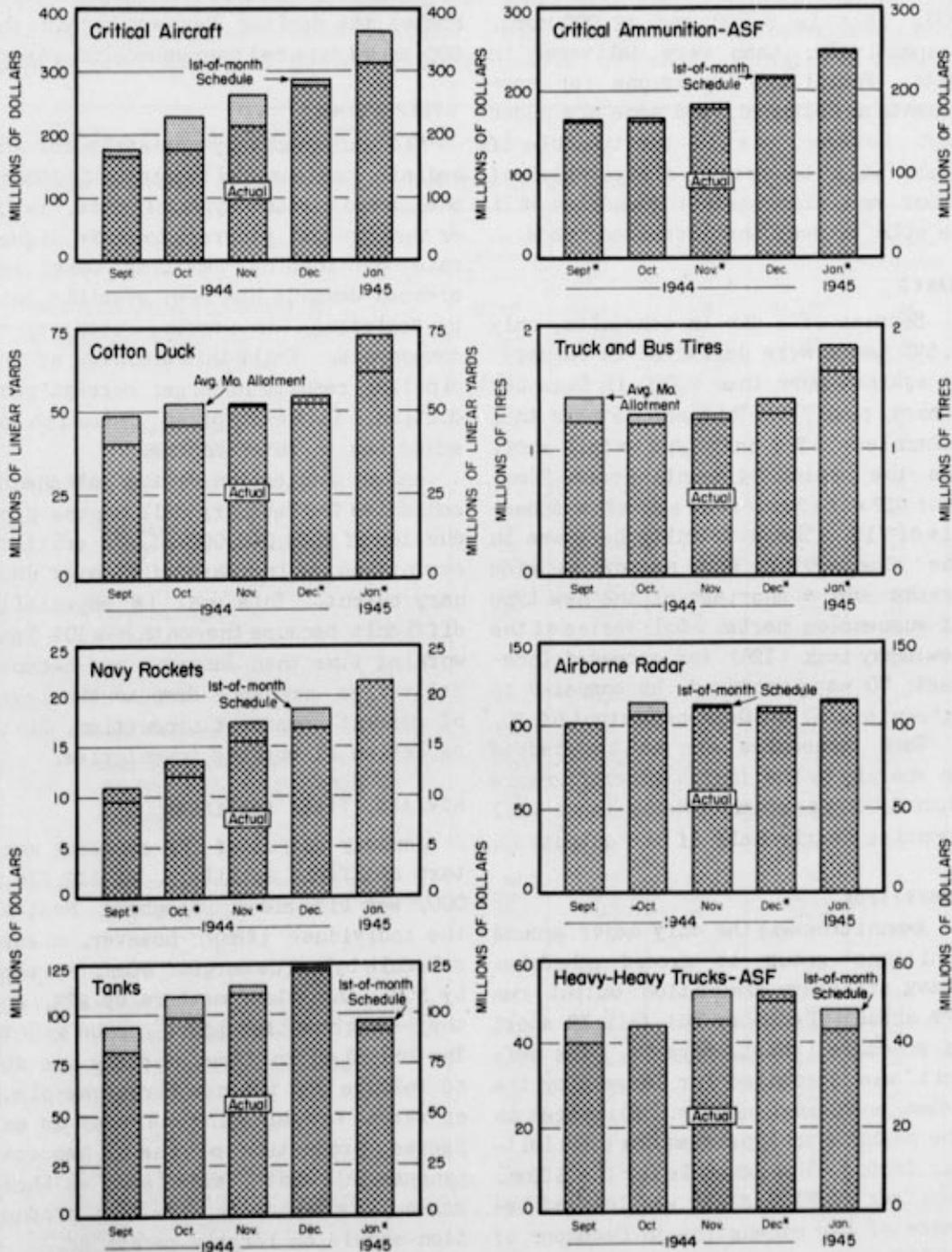
For example, production of heavy-heavy trucks was 20% below December—only 4,970 were delivered, as compared to 6,246 in the previous month and a schedule of 5,256 (chart, page 7). There are several reasons for this. In the first place, there has been a re-orientation of the program: a marked shift in production emphasis from the semicommercial types with two- and four-wheel drives to tactical trucks with six-wheel drives. These are more complex to build, require three rather than one or two driving axles, and take more critical components, rubber, and man-hours (WP-Dec16'44,p7).

Furthermore, deliveries of heavy-heavy trucks require a lead time of about six months, and six months ago the January schedule called for less than 5,000. Consequently, when it was decided late in 1944 to increase this year's program, the time was too short to rebuild production pipelines.

Light-heavy truck production also dropped off; only 20,481 were turned out, as against 21,358 in December, and a schedule of 21,596. General Motors fell 1,185 vehicles short of the 14,838 scheduled, because of a shortage of stockroom inventories. In addition, Gar Wood hoists and winches, Wagner Electric brake cylinders, and Schwitzer-Cummins fuel pumps were not delivered in sufficient quantities to meet the

THE CRITICAL PROGRAM PUSH CONTINUES

All items scored notable gains in January except tanks and heavy-heavy trucks, and those were scheduled to decline.



*Production exceeded forecast

WAR PROGRESS

needs of both production and spares.

Both heavy-heavy and light-heavy programs were boosted again in February: heavy-heavies from 49,000 to 60,000, and light-heavies from 252,000 to 273,000. This is 8,900 and 42,000 more, respectively, than were delivered in 1944. Facilities expansions for components are planned, and some are under way. However, it is questionable if there will be proper distribution of labor and also whether foundries will be able to meet the increased needs.

TANKS

Because of a dip in schedules, only 1,593 tanks were delivered in January, as against more than 2,000 in December (chart, page 7). This was 85 more than scheduled. The only type to fall short was the medium M4 mounting the 76mm. gun; 657 were turned out against a schedule of 715. The difficulty here was in the change-over from narrow to wide tracks and a shortage of the new type of suspension parts. Deliveries of the new heavy tank (T26) far exceeded forecast; 70 were produced, as compared to schedule of 50 and December output of 30.

Tank schedules are to be stepped up sharply by the fourth quarter to more than 3,000 per month. Heavy tanks will comprise nearly half of the output.

AMMUNITION

Ammunition was the only major ground munitions group to exceed schedule. Heavy artillery ammunition output ran 17% ahead of December but fell 3% short of schedule (chart, page 7). The deficit was accounted for largely by the 240mm. and 8-inch shells. Slippages in the machine-tool program are the limiting factor. The schedule for the 155mm. howitzer HE, M107 shell was lowered because of the exhaustion in December of shells to be remanufactured. (Renova-

tion of such shells has been counted as new production.)

Aerial-bomb production exceeded schedule by 7%. All types ran well ahead of December, except for fragmentation bombs; the decline here was because the 500-pound type had been scheduled lower.

STEEP CLIMB

Military strategy now calls for immediate maximum deliveries of 105mm. shells and certain types of bombs, rather than gradual progress toward a higher rate of loading. Meeting these increased demands has been possible only by depleting the working inventory of components. While this draining of the pipeline results in larger current production, it has forced reduction of schedules in later months.

As an indication of the job ahead, schedules for February call for the production of \$263,000,000 of ASF critical ammunition, an increase of 6% over January output. This goal is especially difficult because the month has 10% less working time than January, and because deliveries may soon drop to the level of current component production, due to depletion of working inventories.

MORTARS, FIELD ARTILLERY

January output of the critical mortars and field artillery, at \$12,716,000, was 21% above December. Most of the individual items, however, missed schedule by a wide margin: 60mm. mortars by 30%, the 81mm. mortars by 27%, and the 8-inch howitzer spare cannon by 16%. The big miss in 60mm. mortars was due to failure of the new Firestone plant at Akron to get going as soon as expected; production of one or two components fell short, and as soon as these schedules are made up, the lost production should be largely recovered.

In the 81mm. mortar, the trouble was

in a change in the type of traverse mechanism, plus an internal labor dispute. Delays in getting new facilities up to expected rates of production, plus some shortages of labor, held up artillery. If the new facilities can be brought up to planned production peaks, schedules can be met by the second half

of the year, and these schedules are close to procurement objectives.

Naval Ordnance

ADDITIONAL FACILITIES for motor loading, fusing, and drilling helped to boost output of naval rockets in January.

PRODUCTION PROGRESS - Preliminary

Value delivered or put in place - millions of dollars

	Jan. Preliminary	Dec. Actual	% Change	Jan. Schedule*	% Deviation Jan. Prelim. vs. Schedule
MUNITIONS AND WAR CONSTRUCTION	\$5,007	\$5,071	-1%	\$5,113	-2%
TOTAL MUNITIONS	4,817	4,879	-1	4,923	-2
Aircraft	1,189	1,172	+1	1,238	-4
Total airframes, engines, propellers	951	940	+1	990	-4
Airplane spare parts	206	203	+1	215	-4
Other aircraft and equipment	32	29	+10	33	-3
Ships (incl. maintenance)	970	1,027	-6	989	-2
Navy	431	458	-6	493	-13
Combatant	174	174	0	180	-3
Landing vessels	140	160	-12	142	-1
Other	117	124	-6	171	-32
Maritime	331	384	-14	284	+17
Cargo and Supply	293	316	-7	299	+13
Other	38	68	-44	25	+52
Army Vessels	58	47	+23	62	-6
Ship Maintenance and Repair	150	138	+9	150	†
Guns and Fire Control	251	254	-1	266	-6
Small arms (under 20mm.)	53	55	-4	53	0
Artillery, mortars, rocket launchers-ASF	59	61	-3	61	-3
Fire control and searchlights (excl. Radar)	46	51	-10	53	-10
Naval guns and other	93	87	+7	101	-8
Ammunition	644	621	+4	634	+2
Small arms ammunition (under 20mm.)	50	45	+11	54	-7
Artillery ammunition, mortar shells, rockets-ASF	239	212	+13	237	+1
Aerial bombs-ASF	155	149	+4	145	+7
Naval ammunition and other	200	215	-7	198	+1
Combat and Motor Vehicles	463	512	-10	468	-1
Combat vehicles	168	184	-9	164	+2
Motor carriages for SP guns	19	33	-42	18	+6
Automotive vehicles and tractors	276	295	-6	286	-3
Communication and Electronic Equipment	340	334	+2	352	-4
Radio	99	102	-3	104	-5
Radar	149	142	+5	157	-5
All other	92	90	+2	92	0
Other Equipment and Supplies	960	959	+11	975	-2
WAR CONSTRUCTION (GOV'T. FINANCED)	190	192	-1	190	†

* As of January 1.

† Schedule used for preliminary.

Production, at \$21,300,000, was 27% above December and even with the steeply rising schedule. The schedule calls for a rise of 31% in February and continuous sharp increases throughout the year (chart, page 7).

As a result of a shortage of propellant powder, the 3.5-inch and 5-inch rockets (3.25-inch motor) missed schedule by 24%. Schedules here are twice as great as requirements—this to compensate for the anticipated deficiency in the 5-inch high-velocity aircraft rockets (5-inch motor). Production of these 5-inch high-velocity rockets was more than double the December rate, but 3% below schedule.

Completion of the Naval Ordnance plant (rockets) at Camden, Ark., has been delayed by bad weather; the date for initial operation is now set at April 1, instead of March 1.

Navy high-capacity ammunition was slightly ahead of schedule and 5% above December, but schedules are about 30% below requirements. Unless requirements are raised again, production should begin to catch up with needs in the second half, but the accumulated shortage will not be made up before the end of 1945.

Signal Equipment

DESPITE a new high in airborne radar, production of communication and electronic equipment, at \$340,000,000 (preliminary), missed schedule by 4% and was up only 2% over December.

Airborne radar deliveries are still behind requirements (chart, page 7). For example, output of airborne radar for the Army Service Forces amounted to \$66,000,000 in January, but production must average \$76,000,000 monthly for the balance of the year. In the face of this, the schedule for February was reduced from \$69,000,000 to \$63,000,000

and for March from \$76,000,000 to \$69,000,000, due largely to design changes.

Total airborne radar deliveries, at \$113,000,000, were 3% above the November-December level and 1% short of schedule.

The radio program, which has been going steadily downward, has now turned around. Requirements for handy-talkie and tank and other combat vehicle sets were boosted last month. Because the demand is immediate, these sets have been placed in the critical category. January performance was hardly satisfactory—off 3% from December and 5% from schedule.

CRITICAL WIRE

Production of critical field and assault wire showed marked improvement as a result of higher labor referrals, priority ratings, directives, and allocations. Deliveries of 209,000 miles of wire were 11% ahead of December and within 1% of the Signal Corps forecast. Issue requirements, without allowances for needed inventories, are 25% higher than the current production level.

The labor situation has improved in the copper wire mills; only 1,600 workers are needed, as compared to 3,000 in December. Stranding and braiding facilities now are major limiting factors, and there facilities are short because of labor deficiencies in plants making stranding and braiding machines.

Naval Ships

ALTHOUGH the Navy ship program declines fairly steadily throughout 1945, the decline in January was greater than planned. Completions amounted to 213,000 displacement tons—13% behind the first-of-month forecast and 11% below December.

Combatant ships, at 62,000 tons, were 19% behind schedule. Deliveries in-

cluded the 27,000-ton aircraft carrier "Bon Homme Richard," two light cruisers, three destroyers, two DEs and two submarines. One aircraft carrier escort and two submarines did not come through.

In landing craft, 104,000 tons were completed, as against 116,000 tons in December and 107,000 scheduled. The program declines throughout the year. The big drop is in the tank landing ships (LST) and the medium landing ships (LSM).

Patrol and mine craft fell 17% short of the January target and 29% below the December level. As usual, district craft missed the forecast, this time by 43%, though they were 8% ahead of December. This group failed to meet the goal during 1944. Auxiliary and other craft were 12% behind schedule, 3% below December.

Completions	Jan. (disp. tons)	% Above or Below Dec. Sched.	
		Jan.	Dec. Sched.
Combatants...	62,000	-16%	-19%
Landing craft.	104,000	-10	-3
Patrol & mine.	5,000	-29	-17
District craft	13,000	+8	-43
Aux. & other..	29,000	-3	-12
Total.....	213,000	-11%	-13%

In addition, the Navy completed 24 combat loaders, against a schedule of 32 ships and 49 in December, previously delivered by the Maritime Commission.

Maritime Ships

NOW that the combat loader program is trailing off, the accent in Maritime Commission construction is on Victory ships, deliveries of which reached an all-time peak last month of 33, two above schedule and 20 above December. The previous high was 16 in May, 1944.

Combat loaders and Victorys are built in the same yards. And as combat loaders have come off the ways, construction

of Victory hulls has gone on them. For March, a peak of 39 Victorys is scheduled.

Standard cargo ships also are built in many yards making combat loaders. And standard cargo ship schedules also increase sharply. In January five were delivered, against two in December. And for next November, the scheduled peak, 19 deliveries are on the books.

On the other hand, Libertys continue to decline; 32 were delivered last month. The program runs out at midyear. Peak month in construction of Libertys was May, 1943, when 120 were delivered.

But construction of Z-EC2s (Zipper ships) continues; these are airplane transports built on a modified Liberty design. Schedules call for 22 in the second half of 1945.

As a whole, Maritime deliveries in January, at \$364,000,000, were 2% behind schedule and 20% behind December. The deficiency from schedule was directly traceable to the lag in the combat loader program, which was 20% behind schedule. Deliveries totaled 16, versus 44 in December.

Benzene

BENZENE—needed for aviation gasoline, synthetic rubber, explosives, and other important war products—has now become critical. Surplus stocks are practically exhausted, and the estimated 52,740,000 gallons available for allotment by the Chemicals Bureau in the second quarter is now below actual requirements. Since benzene is a by-product of coke manufacture, any interruption of coal mining operations this spring would be serious.

Largest single use—16,000,000 gallons in the second quarter—is for aviation gasoline, in which benzene is now substituting for toluene, required for high explosives. And the use of benzene

KEY STATISTICS OF THE WEEK

	Latest Week	Previous Week	Month Ago	Same Week			
				1944	1943	1942	1941
War Program - checks paid (millions of dollars).....	1,794	1,688	1,562	1,653	1,527	592	145
War bond sales - E, F, G (millions of dollars).....	175	220	214	676	212	160	-
Money in circulation (millions of dollars).....	25,717 ^p	25,533 ^p	25,175	20,696	15,982	11,422	8,688
Wholesale prices (1926=100)							
All commodities.....	105.0 ^p	104.9	104.7	105.3	102.4	96.2	80.5
Farm products.....	127.2 ^p	126.8	126.3	122.8	120.0	101.9	70.5
Foods.....	104.8	104.9	104.7	104.1	105.7	94.8	73.3
All other.....	99.3 ^p	99.3	99.2	98.2	96.4	94.8	84.6
Petroleum (000 barrels)							
Total U. S. stocks ^a	398,634	404,325	412,101	414,463	440,373	496,594 ^f	497,209 ^f
Total East Coast stocks ^a	56,703	57,662	64,400	55,067	46,436	69,778	82,252
East Coast receipts ^{a, b}	1,773	1,860	1,674	15,512	1,209	n. a.	n. a.
Bituminous coal production (000 short tons) ^{ab}	2,031	1,893	1,888	2,142	1,980	1,826	1,720
Steel operations (% of capacity).....	96.4%	91.4%	92.2%	97.7%	99.5%	96.2%	94.6%
Freight cars unloaded for export, excluding grain ^{ab}							
Atlantic Coast ports.....	3,304	3,439	3,323	2,940	1,226	1,649	1,135
Gulf Coast ports.....	396	431	450	358	398	406	397
Pacific Coast ports.....	2,058	2,121	1,867	1,348	980	309	166
Department store sales (1935-39=100) ^f	177 ^p	172	166	142	178	122	101

^pPreliminary ^aRevised ^bExcludes military-owned stocks ^fEstimated ^{ab}Daily Average n. a. Not Available ^fUnadjusted

itself in explosives accounts for 1,500,000 gallons more.

Steadily increasing requirements for synthetic rubber and nylon have already cut sharply into the supply of benzene available for use in dyes for Army uniform cloth and for the new colored signal smokes. DDT insecticides, sulfa drugs, atabrine, and numerous other drugs and chemicals would also be affected by a reduction of supply.

Truck and Bus Tires

TRUCK AND BUS TIRES (up to 14 inches in width) registered one of the sharpest gains of any of the critical programs. Deliveries of 1,818,000 tires were 30% ahead of December and 13% above schedule (chart, page 7).

However, requirements are still rising sharply. The second-quarter program has been increased by nearly 2,000,000 tires, which means production must almost

double the fourth-quarter '44 output.

A new complication, the effect of which has not yet been fully appraised, is the request of the Combined Chiefs of Staff to the Combined Production and Resources Board on February 14 to study world-wide requirements and capabilities for production of 56-inch bomber tires. If it is decided that additional tires of this size must be produced in the United States, it will have a severe impact on the large truck tire program, even if the increase is achieved in part by the sacrifice of other sizes of airplane tires.

The situation in crude natural rubber is becoming more difficult. The planned expansion in production will create a heavy drain on stocks of natural rubber, with a prospect of a complete exhaustion of U.S. stocks early in 1946 unless access is gained to substantial new sources of supply before the end of this year.

War Progress is loaned to you for official use. It contains CONFIDENTIAL information affecting the security of the United States. Revelation of its contents in any manner to unauthorized persons is prohibited by the Espionage Act.

OFFICIAL RULES for its CUSTODY

- (1) Not to permit information from any copy in their custody to become available to anyone except a Government employee under their immediate supervision who will be bound by the restrictions hereby agreed to and who requires access to WAR PROGRESS in connection with his official duties.
- (2) To keep all copies in a securely locked container when not actually in use.
- (3) Not to incorporate information from WAR PROGRESS in any record unless the use of such record is restricted as if the record were itself a copy of WAR PROGRESS.
- (4) To give prior written notice of any change of address.
- (5) On written request, or before separation from the Government position which entitles them to receive WAR PROGRESS, to return all copies charged to their account.

WAR PROGRESS

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 3(D) at (2)
Economic Dept. Letter, 12-16-75
By , Date

Economic Data
Special Articles

The President

WAR PROGRESS

C. F.
War Production
Board



Disclosure Prohibited Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 502, and E.O. 11707, GPO
Compliance Dept. Letter, 12-1-82
By BME, DAA

MAR 14 1973

CMP's Troubled Ninth Round Patterns in Compliance

Number 233

March 3, 1945

WAR PROGRESS

Prepared in the War Production Board

J. A. Krug, Chairman

War Progress is a confidential report designed to provide a coordinated and continuing picture of the overall war program for the various war agencies. To this end, it presents, analyzes, and interprets basic statistical and economic information, and from time to time examines the pros and cons of controversial questions.

Although War Progress is an official publication of the War Production Board, statements in it are not to be construed as expressing official attitudes of the Board as a whole, or even of individual members. Conclusions, whenever reached, should be considered editorial conclusions.

War Progress is prepared by the War Progress Staff: James J. Cullinane, Thomas A. Falco, Roy T. Frye (drafting); Winona Hibbard, A. R. Hilliard, Morris Katz, Chester L. Kieffer, Marjua Manaker, J. S. Wernick (production).

This report contains CONFIDENTIAL information affecting the defense of the United States. See inside back cover for rules of custody.

CMP's Troubled Ninth Round

Record debt of past-due steel orders, due to lower production, overallotments, results in smallest pie ever cut—10% below first quarter. Military down 2%; nonmilitary, 12%.

CMP'S NINTH ROUND is due to set a whole series of new records—most of them bad. And the worst is the record debt of past-due steel orders that will be carried over into the second quarter, beginning April 1—the result of issuance for the current quarter of more allotments than the diminishing steel supply can meet. Thus many of the allotment tickets now being issued for the new round, even for urgent programs, will entitle their holders only to wait in line, some of them for weeks.

CMP cannot operate that way and immediate retrenchment is called for. Having issued too many tickets, it must now reverse the process, allotting less of the available steel than it has in the past. Consequently, second-quarter allotments are a record low. All claimants have been cut, many drastically. Even the armed services have had to make sacrifices. Activities not war-essential must just forget about steel.

BACK IN NOVEMBER

The worst steel situation since the summer of 1943 developed unexpectedly. At the time when eighth-round allotments were made last November nobody was worrying about steel supply. It was expected to hold just about level with the preceding quarter—and that looked like plenty. Overall military demands were falling, and the fear was that the greater amounts of steel available for home-

front use might jam military production—the critical programs in particular—by tying up manpower and facilities. WPB's General Program Order, written to meet the situation, held allotments down to 110% of expected supply—a record low (WP-Dec23'44, pl).

BATTLE-FRONT DEMANDS

But in December battle-front reverses began to rearrange the steel picture. New and urgent military needs—for ships and airplane landing mats, for instance—brought unprecedented demands for supplementary allotments—over 800,000 tons. This was more steel than could be found, and it was necessary to pick and choose among the new military programs and to prune drastically the allotments already made for programs not war-essential. (Steel for the spot authorization program was cut 60%.) But a new increase of over half a million tons in allotments was actually issued, bringing the total to 115% of expected first-quarter supply. This 15% overallotment was higher than had been intended; but it was not unprecedented and did not look alarming at the time.

As the first quarter got under way, however, it began to appear that a larger-than-normal proportion of allotment tickets were being presented at the mills—well above the average of recent quarters of around 90%. The military production pattern shifted; new urgent programs caused presentation at the mills of tickets that might not otherwise have reached them. Also, lower steel inventories in the hands of manufacturers brought greater demands on primary supply than during recent quar-

ters. It now appears that "attrition" during the current quarter will reach a record low. This means that the 15% overallotment was far too high. Mill order books are seriously overcrowded, delivery dates greatly extended.

Adding to the difficulties of the situation are changes in the product pattern brought about by the newly urgent nature of military requirements. A year ago, when a broad inventory of military supplies was being built up and when battle-front demands were still a minor factor, it was possible to program the use of steel and make stable allotments of the different types and shapes of metal within the capacity of the mills. If more seamless tubing was wanted for bombs, for instance, less might be allotted in that particular quarter for mortar shells or rockets, and the home-front oil-producing industry might get along temporarily with less new pipe. Now, however, bombs, shells, and rockets are all wanted in increasing quantities, and the oil industry is being asked for record production. Seamless products, therefore, will be in severely tight supply for the second quarter; for the third quarter, sufficient manufacturing capacity does not exist to take care of the programs as now laid out.

Army, Navy, Maritime, and ARCO have all found it necessary during the current quarter to go to the mills with urgent new demands not previously programmed. The resulting "directives"—shifting mill schedules and sometimes necessitating retreatment of steel and

readjustment of machines—have inevitably reduced output somewhat. Furthermore, a marked shift in the carbon-steel product "mix" toward high-quality steels ("hot-topped" steels for ammunition) and the lighter gauge flat-rolled products (cold-rolled drum sheets, for instance, for the Army and for export) has cut into production because of the additional man-hours and facilities tied up per ton and the special preparation and treatment required.

WEATHER, TOO

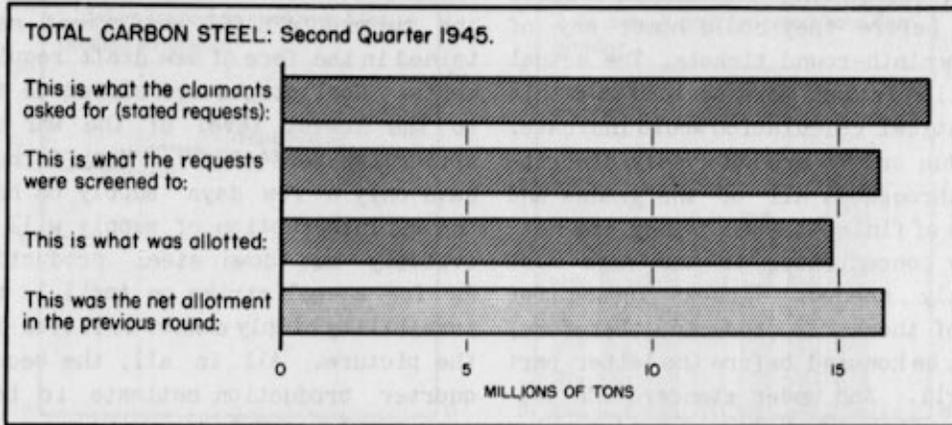
These new stresses on the demand side would have caused a large eighth-round deficit—perhaps 400,000 to 500,000 tons of finished steel—even if supply had come through as originally estimated. But, as everybody knows, acute weather troubles, coming on top of the chronic manpower ailment, have driven steel production into a record decline, from around 95% of capacity in early January to 89% in the middle of February—lowest rate since April, 1941. In the Buffalo area, at one time, the severe weather had reduced output to 23% of capacity. Between 350,000 and 550,000 tons of ingot were lost during the six weeks.

An emergency WPB committee has been set up to work for higher steel production. Output had already turned upward again at the end of February, reaching 96.4% of capacity—a rate slightly above the 1944 average; and it is now hoped that this level can be maintained throughout March. But even if it is, the increase in carryover of past-due orders will be 700,000 tons of carbon steel, at a minimum estimate. And this will bring the total carryover going into the second quarter to at least 2,280,000 tons of carbon steel, 35% above the previous record high at the beginning of the fourth quarter of 1944.

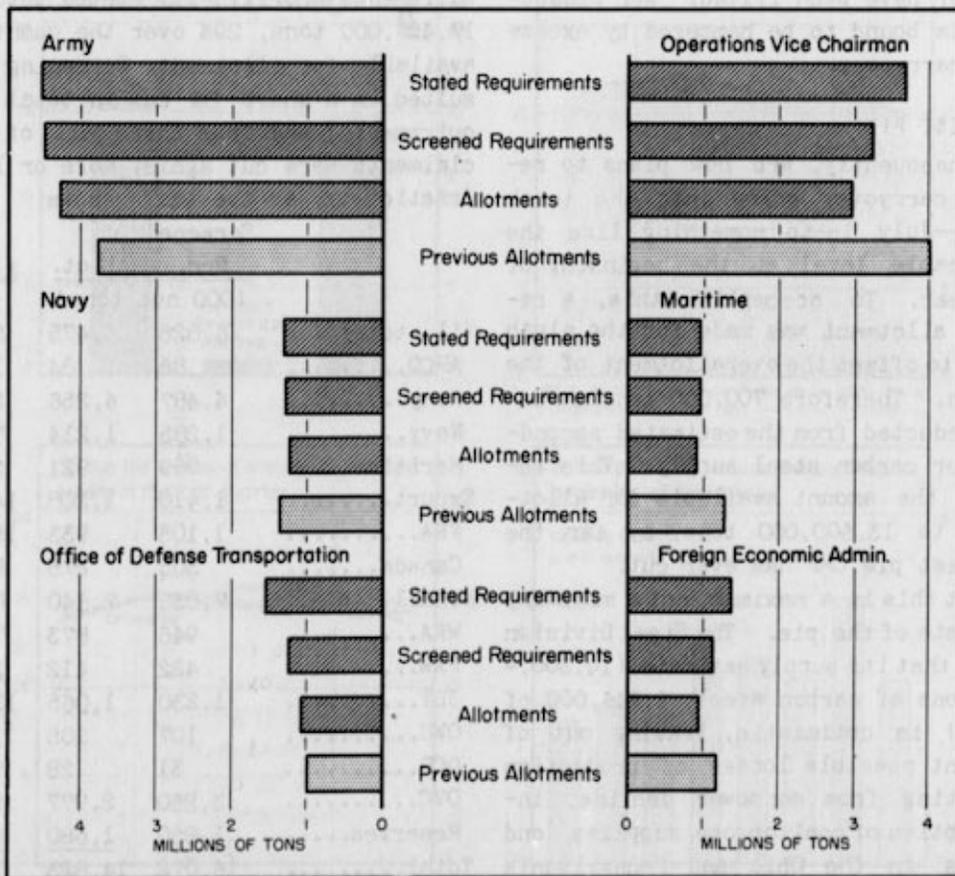
IN THIS ISSUE:

CMP'S TROUBLED NINTH ROUND	1
KEY STATISTICS OF THE WEEK	7
WPB MAKES ITS ORDERS STICK	8
SELECTED MONTHLY STATISTICS	11

GMP ROUND 9—EVERYBODY CUT



All claimants were allotted less than screened requirements, and here is how the major claimants fared:



WAR PROGRESS

Such an accumulation of past-due orders puts the whole system out of joint. On an overall weight basis it would keep the mills working for almost half of April before they could honor any of the new ninth-round tickets. The actual situation is much more serious than this statistical calculation would indicate. Past-due orders are not evenly distributed throughout all of the grades and shapes of finished steel; they are naturally concentrated in the ones most urgently needed. Tickets issued for some of these key products, therefore, cannot be honored before the latter part of April. And under standard CMP procedure, claimants holding second-quarter tickets—even the armed services—must wait until past-due orders of the first quarter have been filled. War production is bound to be hampered by excessive carryover.

SMALLEST PIE

Consequently, WPB now plans to reduce carryover going into the tenth round—July 1—to something like the manageable level at the beginning of the year. To accomplish this, a reduced allotment was made for the ninth round to offset the overallotment of the eighth. Therefore 700,000 tons are being deducted from the estimated second-quarter carbon steel supply. This reduces the amount available for allotment to 13,600,000 tons, by far the smallest pie CMP has ever cut.

But this is a maximum, not a minimum, estimate of the pie. The Steel Division warns that its supply estimate (14,300,000 tons of carbon steel, 1,746,000 of alloy) is optimistic, leaving out of account possible losses of production resulting from manpower decline, interruption of coal or ore supplies, and floods in the Ohio and Pennsylvania areas.

The industry has lost some 16,000 workers since its peak production month of March, 1944. The question now is whether the decline can be halted and the current 475,000 employment maintained in the face of new draft requirements. Coal stocks are slated to fall to the lowest level of the war this spring (WP-Feb3'45, p1). Many furnaces have only a few days' supply on hand, and any interruption of supply will inevitably cut down steel production. As for a coal strike on April 1, that possibility simply cannot be fitted into the picture. All in all, the second-quarter production estimate is based on several hopeful assumptions.

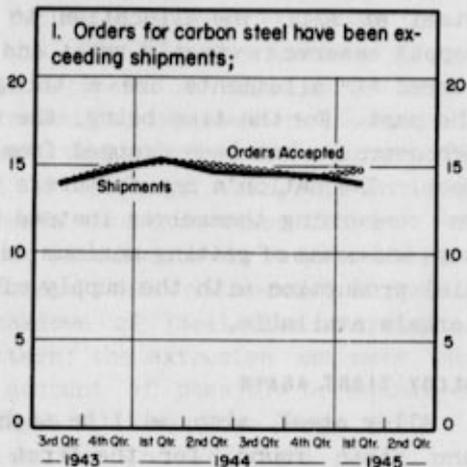
Yet this shaky figure (13,600,000) has been 9% overallotted. Carbon steel requirements as originally stated totaled 17,455,000 tons, 29% over the quantity available for allotment. Screening resulted in a sharp 8% cut in total requirements; and from there all of the claimants were cut again, more or less drastically, as the table shows:

	Screened		
	Req.	Allot.	% Cut
	(000 net tons)		
Mil. total....	6,826	6,475	5.1%
ARCO.....	85	84	1.2
Army.....	4,487	4,256	5.1
Navy.....	1,285	1,214	5.5
Maritime....	969	921	5.0
Export.....	1,410	1,208	14.3
FEA.....	1,105	933	15.5
Canada.....	305	275	9.8
Nonmil. total.	7,836	7,140	8.9
WFA.....	946	873	7.7
PAW.....	422	412	2.4
ODT.....	1,230	1,065	13.4
OWU.....	107	105	1.9
OCR.....	31	28	9.7
OVC.....	3,250	2,977	8.4
Reserves....	<u>1,850</u>	<u>1,680</u>	<u>9.2</u>
Total.....	16,072	14,823	7.8%

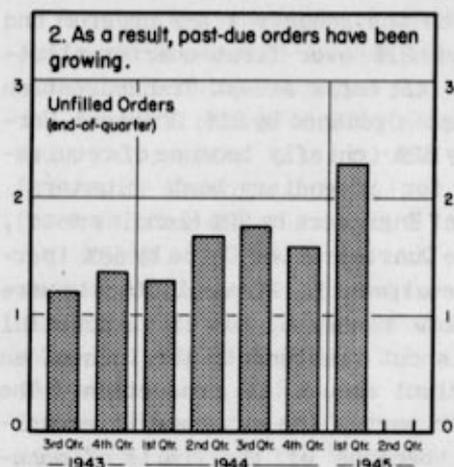
Total allotments are 10% below the

THE DAY OF RECKONING IN CARBON STEEL

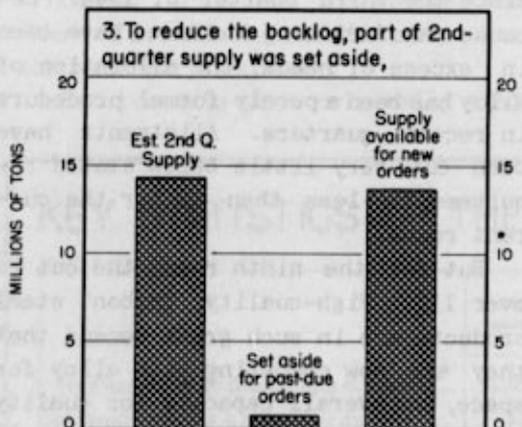
1. Orders for carbon steel have been exceeding shipments;



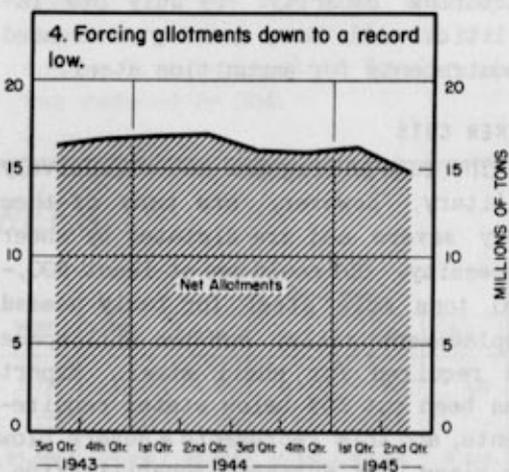
2. As a result, past-due orders have been growing.



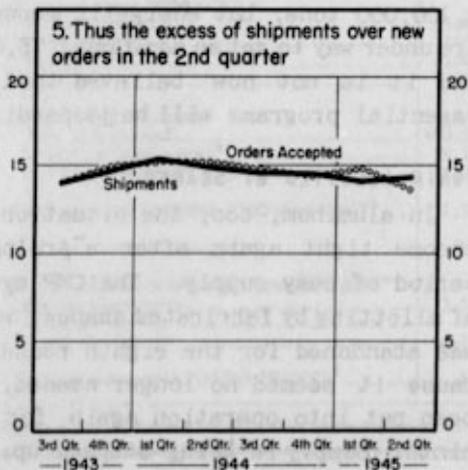
3. To reduce the backlog, part of 2nd-quarter supply was set aside,



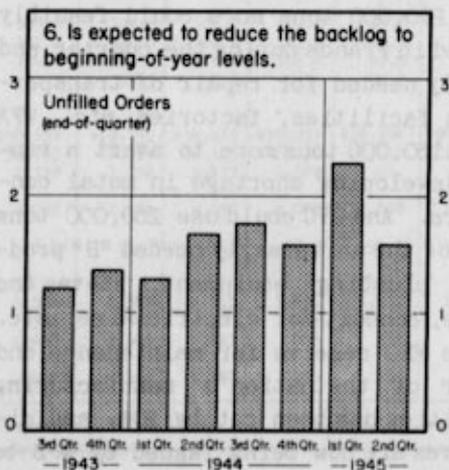
4. Forcing allotments down to a record low.



5. Thus the excess of shipments over new orders in the 2nd quarter



6. Is expected to reduce the backlog to beginning-of-year levels.



Note: 2nd quarter 1945 estimated.

WAR PROGRESS.

previous quarter, the military down 2%, the nonmilitary 12%. The Army's stated requirements, at 4,521,800 tons, were based on the January 1 ASF program and totaled 20% over first-quarter allotments. All corps except Transportation were up: Ordnance by 21%, Chemical Warfare by 32% (chiefly because of requirements for incendiary bomb clusters), Corps of Engineers by 22% (landing mats), and the Quartermaster Corps by 68% (personal equipment). Final allotments were 6% below requests, but it is doubtful if this cut represents the loss of an equivalent amount of production. The greater part of the cut came in ammunition, because of the limits of manufacturing capacity. By July new facilities will have greatly increased requirements for ammunition steel.

OTHER CUTS

The cuts in programs not exclusively military, however, are many of them very severe and are dictated by sheer necessity. ODT could use at least 200,000 tons more steel for badly needed replacement rails, but the mill space is required for shell steel. Export has been cut 30% below stated requirements, and this represents a severe blow to plans for European rehabilitation. Up to 200,000 tons more could feasibly be used in France during the quarter and is badly needed for repair of transportation facilities, factories, etc. WFA needs 150,000 tons more to avert a rapidly developing shortage in metal containers. And OVC could use 250,000 tons more for the universally needed "B" products: plumbing equipment, stoves and ranges, conduit for electric wire, etc.

The MRO reserve for maintenance and repair of the nation's manufacturing facilities has been cut by 20%, and directives are now being issued by WPB to

limit manufacturers' self-assigned priorities in line with the cut. And for nonessential production there is no steel at all. The allocation to the "spot" reserve is exactly zero; and deferred "Z" allotments are a thing of the past. For the time being, the word Reconversion has been dropped from the book. The nation's manufacturers will be concerning themselves instead with ways and means of getting maximum essential production with the supply of materials available.

ALLOY TIGHT AGAIN

Alloy steel, also, will be tight in the ninth round, for the first time since the third quarter of 1944. Because manufacturing facilities have been in excess of needs, the allocation of alloy has been a purely formal procedure in recent quarters. Allotments have been cut very little below stated requirements—less than 1% for the current round.

But for the ninth round the cut is over 11%. High-quality carbon steel products are in such great demand that they are now competing with alloy for space, and overall capacity for quality steels is now somewhat below overall demand. The alloy allotments now total 2,100,000 tons, but energetic measures are under way to get an additional 75,000; and it is not now believed that any essential programs will be jeopardized.

AGAIN ALLOTTED BY SHAPES

In aluminum, too, the situation has become tight again after a prolonged period of easy supply. The CMP system of allotting by fabricated shapes, which was abandoned for the eighth round because it seemed no longer needed, has been put into operation again for the ninth. Supply is being stepped up, but

requirements have mounted so rapidly that even military programs have been drastically cut.

Estimated supply is 713,400,000 pounds, up about 25% from the previous quarter. This estimate is based on the assumption that the manpower necessary to increase production can be obtained. Output of forgings, foil, and extrusions depends also upon other factors: forge stock inventories are very low; the foil estimate takes no account of possible breakdown of facilities or changes of pattern; the extrusion estimate takes no account of possible breakdowns and assumes full use of two large facilities which are in very tight labor areas (Phoenix, Ariz. and Lafayette, Ind.) where it will be difficult to obtain the necessary manpower.

Requirements were originally stated

at 813,173,000 pounds plus 52,000,000 for reserves—20% above estimated supply. Army's request totaled 80% over first-quarter requirements; ARCO's, 40%. For most fabricated shapes, demand far exceeded possible supply—particularly in sheet (airplane landing mats), tubing (aircraft), and extruded shapes (floating aluminum bridges).

Total firm allotments were 759,000,000 pounds, 7% below stated requirements. ARCO received 98% of its request, but cuts for many other claimants were severe. Army lost 15%, mainly in sheet and shapes wanted for its landing mat and floating bridge programs; FEA lost 60% when its claim for Russia was eliminated; ODT was cut 20%, chiefly in sheet for public vehicles; and the Industry Divisions' claim for B products was reduced by 30%.

KEY STATISTICS OF THE WEEK

	Latest Week	Previous Week	Month Ago	Same Week			
				1944	1943	1942	1941
War Program—checks paid (millions of dollars)---	1,638	1,794	1,576	1,471	1,431	567	170
War bond sales - E,F,G (millions of dollars)---	243	175	257	439	273	124	-
Money in circulation (millions of dollars)-----	25,761 [†]	25,652 [†]	25,290	20,823	16,154	11,518	8,725
Wholesale prices (1926=100)							
All commodities-----	104.8 [†]	105.0	104.8	103.6	102.7	96.8	80.4
Firm products-----	126.4	127.2	126.6	124.2	121.2	102.0	70.2
Foods-----	104.1 [†]	104.8	105.0	104.6	106.0	99.5	73.2
All other-----	99.3 [†]	99.3	99.3	98.3	96.5	95.0	84.5
Petroleum (000 barrels)							
Total U. S. stocks*-----	400,606	398,634	409,730	414,439	439,231	496,896 [†]	498,308 [†]
Total East Coast stocks*-----	56,154	56,703	62,939	54,103	46,138	67,014	81,296
East Coast receipts**-----	1,793	1,773	1,696	1,477	1,189	n. a.	n. a.
Bituminous coal production (000 short tons)**-----	1,919	2,047 [†]	2,025	2,158	2,033	1,848	1,774
Steel operations (% of capacity)-----	94.6%	96.4%	91.2%	97.7%	98.9%	96.3%	96.3%
Freight cars unloaded for export, excluding grain**							
Atlantic Coast ports-----	3,336	3,304	2,847	2,831	1,406	1,811	1,507
Gulf Coast ports-----	488	396	542	384	446	456	368
Pacific Coast ports-----	2,153	2,058	1,903	1,223	883	331	117
Department store sales (1935-39=100) [†] -----	176	176 [†]	160	142	155	115	91

[†] Preliminary [†] Revised * Excludes military-owned stocks † Estimated ** Daily Average n. a. Not Available † Unadjusted

WPB Makes Its Orders Stick

While the 1,200 directives, regulations, etc. which control U.S. economy are generally accepted, Compliance Division is "police department" to insure enforcement.

CUTTING ACROSS America's entire economic life are some 1,200 War Production Board orders, regulations, directives, schedules, and interpretations. They control the manufacture and distribution of tacks and textbooks, the construction of cowsheds and cupolas, and the brightness of lights on Broadway and Main Street, as well as the production of tanks, planes, railroad cars, and farm machinery.

For the most part these rules are generally accepted; if they weren't the enforcement job would be impossible. No police force, no investigating staff could check up on the myriad transactions which compose a \$200,000,000,-000-a-year business.

SOMETIMES ON PURPOSE

But the rules run counter to established ways of business. So inevitably there are violations—sometimes intentional, sometimes unintentional. Last year some 37,000 complaints were added to the 1943 backlog of 3,800.

WPB dropped 25,000 as unfounded or trivial.

Warning letters went out in 7,500 cases and, in most instances, the matter ended—clear indication of the general will to obey.

Disciplinary action—stopping or revising production—was taken in 661 cases.

Informal settlements and legal review closed 840 cases.

And 226 criminal actions were initiated. Of these, the Department of

Justice dropped 48—insufficient evidence; 78 are still pending; and 100 went to court. The score in these 100 was: two acquittals, 98 convictions—with fines totaling \$271,482 and 12 jail sentences, ranging from one month to one year.

At the end of the year the carry-over of cases had gone up 68%—to 6,400.

Within WPB, compliance enforcement is divided into police, prosecution, and quasi-judicial functions.

WPB'S COPS

The Compliance Division of the Distribution Bureau is WPB's police department. Since 1941, it has investigated some 250,000 business firms. Like the "cop on the beat," it lets many trivial offenders go with a bawling out; its staff of 470 field inspectors concentrates on flagrant violations.

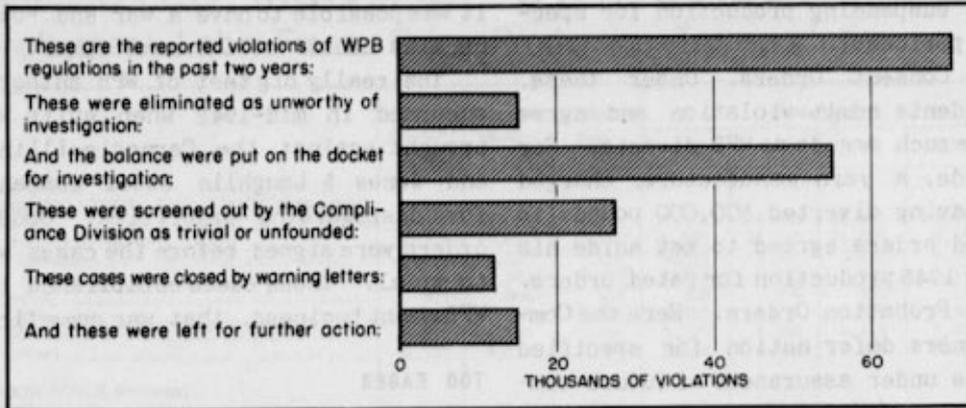
The General Counsel's office—like the district attorney—presents cases before WPB's own "judges," who file reports and recommend action to be taken. Cases with a criminal aspect are referred to the Department of Justice.

WPB's "judges" are the 35 Compliance Commissioners who hold hearings in 13 regions. Most of them are former state judges or deans of law schools. They function under a Chief Compliance Commissioner in Washington who reports directly to the WPB chairman.

Hearings before commissioners follow quasi-judicial procedure. Testimony under oath may be required. Records may be subpoenaed. Respondents may be represented by counsel. Decisions are recommendations to the Director of Compliance; he issues the final orders. These take three forms:

(1) Suspension Orders. These with-

PATTERNS IN NONCOMPLIANCE

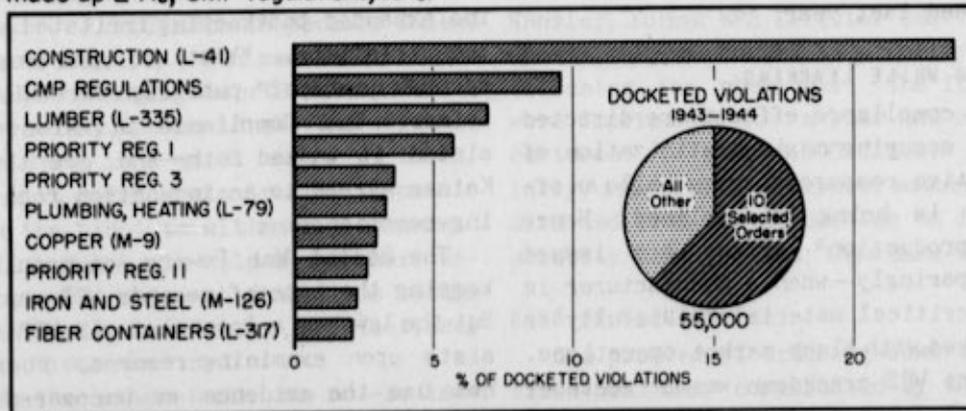


Of the violations docketed, "L" orders represented more than half of the two-year total; "M" orders, one-sixth.

Order	Regulations* in Effect on Jan. 1, 1945	% of Total Regulations	Docketed Violations (000)	% of Docketed Cases
L - LIMITATION	413	34.4%	31.0	56.7%
M - CONSERVATION	368	30.7	8.9	16.0
PR- PRIORITIES	63	5.3	6.7	12.2
CMP REGULATIONS	249	20.8	5.3	9.6
P - PREF RATINGS	46	3.8	1.7	3.0
R - RUBBER	11	.9	.3	.6
E - EQUIPMENT	4	.3	.2	.3
U - UTILITIES	22	1.8	.1	.2
ALL OTHER	24	2.0	.8	1.4
TOTAL	1,200	100.0%	55.0	100.0%

*Includes directives, amendments, schedules, and interpretations.

These orders accounted for 62% of the docketed violations. Construction (L-41) alone made up 24%; CMP regulations, 10%.



WAR PROGRESS

draw priorities or allocations or restrict use of materials, thus having the effect of either partially or entirely suspending production for specified periods.

(2) Consent Orders. Under these, respondents admit violation and agree to make such amends as WPB directs. For instance, a yarn manufacturer charged with having diverted 500,000 pounds to unrated orders agreed to set aside his entire 1945 production for rated orders.

(3) Probation Orders. Here the Commissioners defer action for specified periods under assurances of future compliance.

Respondents may appeal from any of these decisions to the Chief Compliance Commissioner. His decision is final. Last year 60 appeals were taken. Of these 31 were dismissed and 29 were upheld, resulting in revocation or modification of suspension orders.

In flagrant cases the Commissioners may recommend criminal prosecution. Although the number of criminal cases is small in comparison to the overall total, they are increasing. Of the 456 cases sent to the Justice Department in three and a half years, almost half originated last year.

Or the commissioners may dismiss the charges: 141 out of some 800 cases were dismissed last year.

EARNING WHILE LEARNING

All compliance efforts are directed toward securing maximum utilization of productive resources, even while an offender is being disciplined. Hence "stop-production" orders are issued only sparingly—when a manufacturer is using critical materials wastefully or is linked with black market operations.

First WPB crackdown was on October 15, 1941. Order "S-1" suspended for six months aluminum operations in a

foundry which had been making castings for juke boxes and slot machines. Those were the days when many industries thought it was possible to have a war and "business as usual" at the same time.

The really biggest test of WPB authority occurred in mid-1942 when suits were brought against the Carnegie-Illinois and Jones & Laughlin steel companies for disregarding priorities. Consent orders were signed before the cases went to trial. Those cases established that WPB meant business, that war came first.

TOO EAGER

Thereafter, the major problem was to curb overenthusiastic producers who disregarded inventory quotas to smash production records. Plants expanded so fast that bookkeeping departments could not keep up with them. Inadvertent violations became common. Often manufacturers had no idea what materials they had on hand. In one shipyard, 35,000 pounds of copper tubing were found under a scrap pile. An airplane builder accumulated a 23-years' supply of one type of tool.

The Controlled Materials Plan provided a solid base for checking compliance. WPB "borrowed" several hundred investigators and auditors from other federal agencies to audit industry books. The expanded bookkeeping irritated some industrialists. "What do you want—records or ships?" publicly roared Henry Kaiser. The Compliance Division insisted it wanted both—and got them. Kaiser agreed to an injunction requiring compliance.

The Second War Powers Act requires keeping the type of records WPB wants. But the law has a loophole. If WPB insists upon examining records, it may not use the evidence so uncovered to prosecute offenders if immunity is demanded. More and more firms—especially

SELECTED MONTHLY STATISTICS

Employment-Labor Force-Sales-Production-Transportation

	Latest Month**	Preceding Month	2 Months Ago	Same Month			
				1943	1942	1941	1939
NONAGRICULTURAL EMPLOYMENT (thousands)							
Total	37,852	38,811 ^a	38,352 ^a	39,364	36,250	32,878	28,914
Manufacturing—Total	15,544	15,616 ^a	15,602 ^a	16,423	13,740	11,603	9,535
Durable	9,233	9,229 ^a	9,236 ^a	9,275	7,323	5,813	4,148
Nondurable	6,311	6,387 ^a	6,366 ^a	6,848	6,417	5,291	5,387
Mining	803	806	812 ^a	922	991	933	879
Trade	7,012	7,617	7,299	6,955	7,294	6,888	6,325
Government (Federal, State, and Local)	5,896	6,120	5,914	5,725	4,660	4,213	3,883
Other†	8,597	8,652	8,715	9,339	9,565	9,241	8,292
LABOR FORCE (millions)							
Total	51.0	51.3	52.2	52.7	52.9	52.3	n.a.
Employment	50.1	50.6	51.5	51.4	49.1	45.5	n.a.
Male	33.2	33.3	33.7	36.0	36.9	34.8	n.a.
Female	17.0	17.3	17.8	15.3	12.2	10.7	n.a.
Unemployment	.8	.7	.7	1.3	3.8	6.8	n.a.
Male	.5	.4	.4	.8	2.8	5.2	n.a.
Female	.4	.3	.3	.5	1.0	1.6	n.a.
RETAIL STORE SALES (millions of dollars)							
Total	7,445	6,214	6,135	4,443	4,343	3,687	2,860
Durable goods stores	1,004	876	898	580	826	1,018	639
Nondurable goods stores	6,441	5,338	5,237	3,863	3,516	2,670	2,221
PRODUCTION OF CLOTHING AND SHOES FOR CIVILIANS (1935-39=100)††							
Clothing and shoes combined	94	101	100	97	101	111	98
Clothing	96	103	103	101	103	111	100
Shoes	88	88	87	83	94	108	92
TRANSPORTATION-COMMODITY AND PASSENGER (1935-39=100)††							
Commodity	215	224	229	215	193	146	107
Passenger	194	210	216	200	182	147	107
Passenger	272	270	272	266	226	143	118

*Employment, Labor Force, January; all other, December. ^aPreliminary. ^bRevised. [†]Transportation, construction, finance, service, and miscellaneous. ^{n.a.}Not Available. ^{††}Unadjusted.

those engaged in chiseling and black market operations—are closing their books to compliance inspectors unless granted immunity. This means an increase in time-consuming detective assignments. Inspectors, who could get the evidence they seek in a quick audit of books, now must spend weeks tracing shipments from the plant to ultimate consumers.

Time has both helped and hurt enforcement. As law-abiding firms became acquainted with WPB rules, unintentional infractions declined.

On the other hand, as not-so-law-abiding firms became acquainted with the ins, outs, and loopholes of the

legislation, intentional violations increased. Recently the name of Ernest Kanzler, former WPB Director General of Operations, was forged to priority certificates for chemicals. The forgers were imprisoned for a year and a day, sentenced to pay \$5,000 fines. Similarly, fractional horsepower motors were diverted from war production on forged priority certificates; that case ends.

HARD ON SLEUTHS

The problem of tracking down violations has been complicated by the resumption of civilian production. For instance, when alarm clock and electric

fan production was forbidden, compliance inspectors knew that those appearing in stores were "black market." Now a stock of alarm clocks is no longer prima-facie indication of a production violation.

The majority of noncompliance reports originate within industry. The *Chicago Tribune*, for instance, reported its competitor, the *Chicago Sun*, for exceeding its paper quota. Schick reported Remington-Rand and Remington-Rand in turn reported Schick for making too many electric razors.

The Compliance Division cannot afford to—and doesn't—sit back and wait for violations to be reported. Spot surveys of selected segments of industry are made from Washington and by roving staffs of inspectors. Industry never knows when to expect them. In addition CMP audits uncover violations—some 2,500 were reported from this source last year.

Although competitors are eternally vigilant over one another, their vigilance ceases when they, themselves, are culpable. Thus whenever violations become prevalent within an industry, the violators adopt a tacit I-won't-tell-on-you-if-you-don't-tell-on-me policy.

TROUBLESOME ORDER

Construction Order L-41 accounts for one-fourth of all reported violations (chart, page 9). Under it, new construction of any magnitude (whether for a new building, an addition, or an improvement) must have WPB sanction. This takes in the farmer who wants to put up a dairy barn, the householder who wants a new wing on his home, the merchant who wants a new store front.

Virtually all construction materials—lumber, roofing, plumbing equipment, etc.—are under individual control orders at the source of production. Once the end product leaves a manufacturer, how-

ever, it is an almost impossible task to check compliance at the retail level. That would mean periodic investigations of hundreds of thousands of retail outlets. Although L-41 has been well publicized, many home owners, farmers, etc. either don't know about it or ignore it if they do.

JUDICIAL MYOPIA

Courts sometimes add to the enforcement problem. They don't always recognize the direct connection between the use of labor and scarce materials, such as lumber, with the war effort. Recently a candy company was brought into court by WPB for starting \$70,000 worth of construction on a dairy farm. They wanted it to produce milk for use in their candy factory. Despite WPB's argument that this deprived war plants of labor and needed materials, the judge fined the company only \$1. Holding the line on construction is apt to be particularly troublesome after V-E Day.

Next to construction the most troublesome orders have been those governing textiles. Here again it is a case of dealing with a large number of violators or potential violators. There are many thousands of small firms in the textile industry, ranging all along the line from the manufacture and conversion of cloth to the manufacture and sale of dresses, underwear, etc.

The gravest compliance problems lie ahead after V-E Day. Then some controls will be relaxed, but tight enforcement of those remaining will be required to meet demands in the Pacific. The big question will be whether people will continue to accept the idea that controls are necessary to protect war production. As outlined at the outset, the rules and regulations only work with the consent of the governed.

War Progress is loaned to you for official use. It contains CONFIDENTIAL information affecting the security of the United States. Revelation of its contents in any manner to unauthorized persons is prohibited by the Espionage Act.

OFFICIAL RULES for its CUSTODY

- (1) Not to permit information from any copy in their custody to become available to anyone except a Government employee under their immediate supervision who will be bound by the restrictions hereby agreed to and who requires access to WAR PROGRESS in connection with his official duties.
- (2) To keep all copies in a securely locked container when not actually in use.
- (3) Not to incorporate information from WAR PROGRESS in any record unless the use of such record is restricted as if the record were itself a copy of WAR PROGRESS.
- (4) To give prior written notice of any change of address.
- (5) On written request, or before separation from the Government position which entitles them to receive WAR PROGRESS, to return all copies charged to their accounts.

WAR PROGRESS

~~CONFIDENTIAL~~

Disclosure Punishable Under Espionage Act

RECEIVED
MAR 14 1973

Economic Data
Special Articles

The President

1

WAR PROGRESS

B.F.
War Production
Board

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 8(K) and 8(D) of (S)
Commerce Dept. Letter, 11-16-72
By RHP, Date **MAR 14 1973**

Wrapping Up Production

X4735

Number 234

March 10, 1945

WAR PROGRESS

Prepared in the War Production Board

J. A. Krug, Chairman

War Progress is a confidential report designed to provide a coordinated and continuing picture of the overall war program for the various war agencies. To this end, it presents, analyzes, and interprets basic statistical and economic information, and from time to time examines the pros and cons of controversial questions.

Although War Progress is an official publication of the War Production Board, statements in it are not to be construed as expressing official attitudes of the Board as a whole, or even of individual members. Conclusions, whenever reached, should be considered editorial conclusions.

War Progress is prepared by the War Progress Staff:
James J. Cullinane, Thomas A. Falco, Roy T. Frye
(drafting), Winona Hibbard, A. R. Hilliard, Morris Katz,
Chester L. Kieffer, Martha Menaker, J. S. Werking (production).

This report contains CONFIDENTIAL information affecting the defense of the United States. See inside back cover for rules of custody.

Wrapping Up the Production

Containers, packaging materials—tight since Pearl Harbor—will face toughest situation in the coming quarter. Steel, lumber, lead, cotton needed, plus manpower in plants.

SINCE the war began, the history of containers has been a history of shortages. But if a steel drum wasn't available, a wooden barrel was at hand, or glass or paper would do—until the third quarter of 1944. Then even munitions plants began to feel the pinch. For want of wooden and wirebound boxes, Lone Star Ordnance had to slow down production; Kankakee Ordnance was forced to store its production of TNT in magazines until boxes were available for shipping. And in the second quarter of 1945, the packaging industry will be faced with its worst situation of the war.

Few items produced affect as many

industries as do containers, which range in size from a box for a dozen aspirin tablets to crates large enough to be used as houses—and they sometimes are. Packaging materials are just as diversified. They include steel strapping, wrapping paper, bags, tubes, drums, etc. Container production, following as it does the curve of industrial and agricultural production, has risen from \$2,000,000,000 in 1940 to a current annual rate of \$3,500,000,000. A slowdown in container output would inevitably mean slowdowns—and even some shutdowns—in military and essential civilian output.

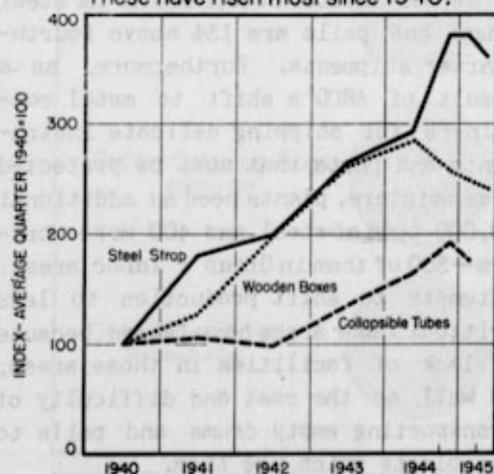
TWOFOLD TASK

As war production got under way, demand for containers and packaging materials mounted rapidly. But soon after

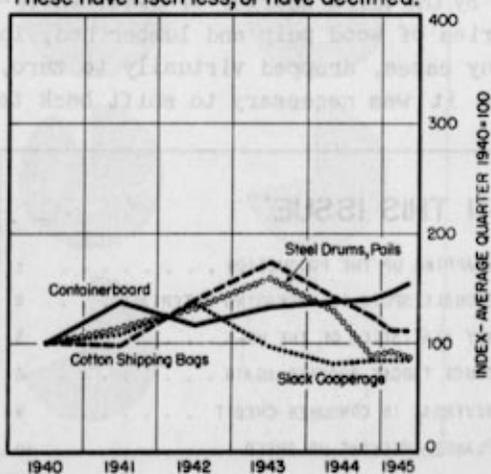
TRENDS IN CONTAINER OUTPUT

Production of these selected critical items, except containerboard, will be down.

These have risen most since 1940:



These have risen less, or have declined:



Note: Quarterly average through 3rd quarter, 1944; quarterly figures thereafter, 1945 estimated.

WAR PROGRESS

Pearl Harbor metal containers became tight: steel was needed for munitions; tin was in short supply when the Malay States fell to the Japanese. The container industry was faced with two jobs:

1. Simplification and conservation.

Large containers were designed which would hold more than several small ones using equivalent raw material.

2. Substitution. Cardboard, paper, wood, glass, and cotton were substituted for scarce tin and steel wherever possible.

By early 1943, the switch from tin and steel to other materials had been effected, except where it had proved unfeasible. Grease, for example, was shipped experimentally in fiber containers which failed to stand up under bad weather conditions, and steel containers had to be used.

CIVILIAN PINCH

Then wood pulp and lumber in turn became tight, and production of many types of containers for civilian use declined. Early in 1944, nonmilitary users of container board were limited to 40% to 85% of their 1942 consumption, and output of grocery bags and wrapping paper was cut sharply.

By the third quarter of 1944, inventories of wood pulp and lumber had, in many cases, dropped virtually to zero, and it was necessary to shift back to

steel. V-E Day seemed to be just around the corner and steel, it was thought, would soon be plentiful. Relaxations of L-197 and M-81 were prepared to free the way for its increased use. But V-E Day didn't come, and the 1945 munitions program changed an easy steel situation into the tightest since the summer of 1943 (WP-Mar3'45,pl).

Although all types of containers are in short supply, those likely to cause the most trouble in the second quarter are steel strapping, steel drums and pails, wooden boxes and barrels, collapsible tubes, fiber shipping containers, and cotton bags.

Almost four-fifths of total steel strapping consumption is for direct and indirect military shipments. Against second-quarter requirements of 115,000 tons of steel, only 90,000 have been budgeted. The mandatory palletizing program will increase the demand for strapping. (Material to be shipped is placed on pallets or skids and the entire load bound with steel strapping, saving time, labor, and materials.) About 375 workers are needed in plants in Group I labor areas.

ARCO'S PAILS

Second-quarter requirements for steel drums and pails are 13% above fourth-quarter shipments. Furthermore, as a result of ARCO's shift to metal containers for shipping delicate instruments and parts that must be protected from moisture, plants need an additional 10,000 tons of steel and 400 more workers—300 of them in Group I labor areas. Attempts to shift production to less critical labor areas have failed because of lack of facilities in those areas, as well as the cost and difficulty of transporting empty drums and pails to the plants which use them.

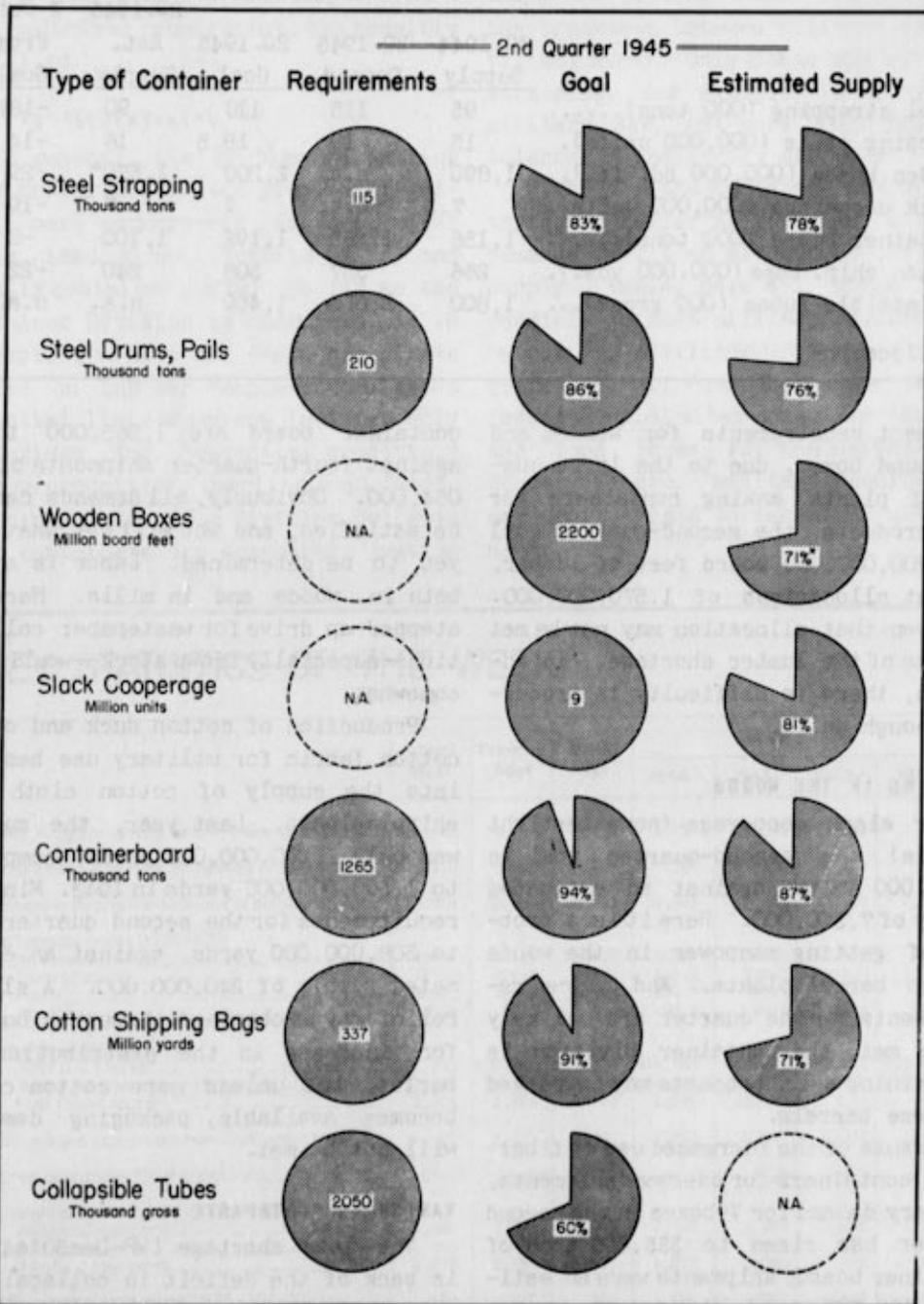
While it is difficult to determine

IN THIS ISSUE:

WRAPPING UP THE PRODUCTION	1
TROUBLE SPOTS IN PACKAGING MATERIALS	4
KEY STATISTICS OF THE WEEK	5
TRUCK TARGET BOOSTED AGAIN	6
REVERSAL IN CONSUMER CREDIT	9
PLANES—PICKING UP SPEED	10
WAR PROGRESS NOTE	12

POINTING UP THE CONTAINER PROBLEM

In the coming quarter, supply of these critical types will fall short of demand, with big deficits in wooden boxes and cotton shipping bags.



Note: 2nd quarter 1945 requirements = 100 except for wooden boxes and slack cooperage where 2nd quarter 1945 goal = 100.

* Allocation

TROUBLE SPOTS IN PACKAGING MATERIALS

THOUGH all types of containers are in short supply, the following are likely to cause the most difficulty in the coming quarter:

	4Q. 1944	2Q. 1945	2Q. 1945	2Q. 1945	% Def.
	Supply	Demand	Goal	Est. Supply	From Goal
Steel strapping (000 tons).....	95	115	110	90	-18%
Shipping pails (000,000 units)..	15	19	18.5	16	-14
Wooden boxes (000,000 bd. ft.)..	1,890	n.a.	2,200	1,570*	-29
Slack cooperage (000,000 units).	7.3	n.a.	9	7.3	-19
Container board (000 tons).....	1,156	1,265	1,192	1,100	-8
Cotton ship. bags (000,000 yds.).	266	337	308	240	-22
Collapsible tubes (000 gross)...	1,800	2,050	1,400	n.a.	n.a.

* Allocation

the exact requirements for wooden and wirebound boxes, due to the large number of plants making containers for many products, the second-quarter goal is 2,200,000,000 board feet of lumber, against allocations of 1,570,000,000. But even that allocation may not be met because of the lumber shortage. In addition, there is difficulty in procuring enough nails.

STARTING IN THE WOODS

For slack cooperage (nonwatertight barrels) the second-quarter goal is 9,000,000 units, against an estimated supply of 7,300,000. Here it is a problem of getting manpower in the woods and in barrel plants. And since requirements for the quarter are unlikely to be met, the Container Division is determining which products may be packed in these barrels.

Because of the increased use of fiberboard containers for overseas shipments, military demand for V-boxes in the second quarter has risen to 335,000 tons of container board; shipments were an estimated 222,000 tons in the fourth quarter of last year. Overall requirements of

container board are 1,265,000 tons, against fourth-quarter shipments of 1,054,000. Obviously, all demands cannot be satisfied, and who will get what has yet to be determined. Labor is short both in woods and in mills. Here a stepped-up drive for wastepaper collection—especially brown stock—would help somewhat.

Production of cotton duck and other cotton fabric for military use has cut into the supply of cotton cloth for shipping bags. Last year, the supply was only 1,200,000,000 yards, compared to 1,500,000,000 yards in 1943. Minimum requirements for the second quarter run to 308,000,000 yards, against an estimated supply of 240,000,000. A slight relief may be obtained through a hoped-for increase in the distribution of burlap, but unless more cotton cloth becomes available, packaging demands will not be met.

VANISHING TOOTHPASTE

The lead shortage (WP-Dec30'44,p4) is back of the deficit in collapsible-tube requirements. The goal is 1,400,000 gross, but attaining it will depend

on sufficient allocation of lead. Certain items, such as toothpaste, cannot use any container except a collapsible tube. Yet only a small part of this demand—and only for military export—plus medicinal requirements can possibly be filled.

WHAT IS "ESSENTIAL"?

In general, the problem of getting more containers is the problem of getting more workers—in forests, steel mills, lead mines, textile mills, and finally container plants. So far as the Container Division is concerned, it is attempting to have all container plants placed on the War Manpower Commission essential list, which now includes only packagings for "essential products," such as ammunition, gasoline, most foods, medicines, etc. The Division believes all containers are essential, just as

railroads are essential even though they haul a certain amount of nonwar goods.

The problem of determining essential production is complicated by the difficulty of getting exact statistics on the breakdown between military and civilian demand. Only 20% to 30% of steel strapping, for example, is for direct military use, but more than half the balance is indirectly military.

Right now the Container Division is trying to tailor military and civilian demands to fit an altogether-too-short supply (table, page 4). While it is possible to meet military requirements by cutting civilians, it isn't always practical. If the choice is between less-essential fiber boxes for the Army and food boxes for the neighborhood grocery store, military requirements may have to yield to essential civilian needs.

KEY STATISTICS OF THE WEEK

	Latest Week	Previous Week	Month Ago	Same Week			
				1944	1943	1942	1941
War Program—checks paid (millions of dollars)...	1,921	1,658	2,122	1,899	1,516	641	185
War bond sales—E, F, G (millions of dollars)...	204	243	227	396	152	160	-
Money in circulation (millions of dollars).....	25,884	25,750*	25,411	20,963	16,205	11,520	8,805
Wholesale prices (1926=100)							
All commodities.....	105.8 [#]	104.8	104.7	103.4	102.9	96.9	80.6
Farm products.....	127.2 [#]	126.4	125.7	123.2	122.0	101.5	70.5
Foods.....	104.5 [#]	104.1	104.3	104.5	106.4	95.8	73.4
All other.....	97.4 [#]	99.3	99.3	98.3	96.6	95.1	84.8
Petroleum (000 barrels)							
Total U.S. stocks*.....	398,313	400,606	407,376	414,667	440,229	497,202 [#]	499,400
Total East Coast stocks*.....	57,394	56,154	61,969	54,961	45,046	65,437	79,800
East Coast receipts**.....	1,909	1,793	1,867	1,628	1,248	n.a.	n.a.
Bituminous coal production (000 short tons)**.....	1,988	1,931 [#]	1,993	2,065	2,027	1,838	1,774
Steel operations (% of capacity).....	95.9%	94.6%	88.7%	97.5%	98.2%	97.2%	97.5%
Freight cars unloaded for export, excluding grain**.....							
Atlantic Coast ports.....	3,502	3,336	1,972	2,928	1,327	1,630	1,170
Gulf Coast ports.....	507	488	511	377	459	478	440
Pacific Coast ports.....	2,070	2,133	2,107	1,272	1,003	360	109
Department store sales (1935-39=100)†.....	182	177 [#]	163	146	162	127	106

[#]Preliminary ^{*}Revised ^{**}Excludes military-owned stocks [†]Estimated [‡]Daily Average [§]Not Available [¶]Unadjusted

Truck Target Boosted Again

Output must rise 13% over current level to meet first-half requirements. All of recent increase is in military vehicles, but commercial program is double 1944's.

BACK IN OCTOBER, tentative plans for the 1945 truck program called for 882,800 military and commercial trucks, or about 122,000 more than were produced in 1944. When the program was formally adopted on December 19, the commercial-truck program was reduced by 25,000 and military requirements increased by 11,000. Since then, another 44,000 military trucks have been added, contingent upon expansion of facilities. The present combined program of 913,500 trucks (including 8,000 full-tracked Weasels) is 152,000, or 20%, more than rolled off the nation's assembly lines last year.

Although military requirements for all four categories of trucks have been

boosted since October, more than three-fourths of the increase has been in the critical light-heavies and heavy-heavies:

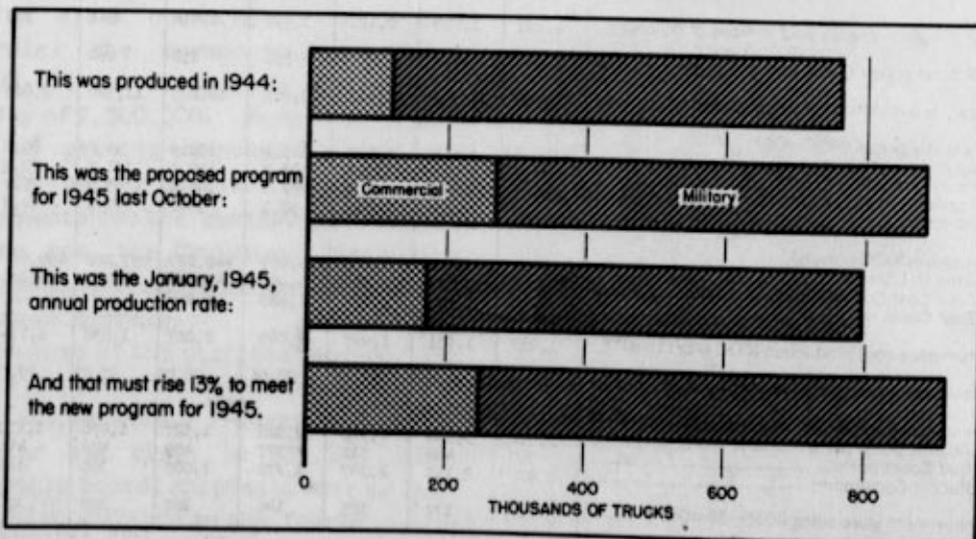
Military	1945 Program		%
	Oct.	Today	
Lights.....	256,650	261,800	2%
Mediums.....	38,400	45,960*	20
Light-heavies...	271,700	295,000	9
Heavy-heavies...	46,770	65,270	39
Total.....	613,520	668,030*	9%

* Includes Weasels.

The commercial-truck program has been reduced 9% since October. The biggest reduction was in the Office of Defense Transportation allotments, although the 187,000 trucks ODT is scheduled to get are 90,000 more than last year. But back in April ODT requested 775,000 trucks this year.

The commercial program as a whole is double the 1944 output of 120,000 and constitutes 27% of the total pro-

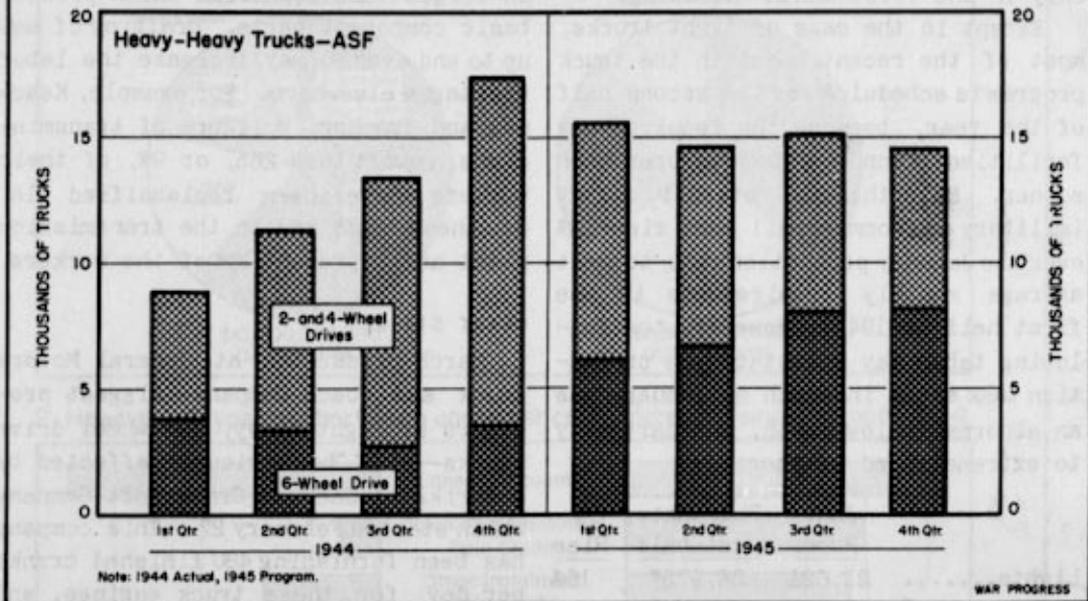
TRACKING DOWN THE TRUCK PROGRAM



WAR PROGRESS

A LOOK AHEAD AT HEAVY-HEAVIES

Army program for 1945 calls for more than double last year's output of six-wheel drive trucks but 17% fewer two- and four-wheel drives.



gram, as against 15% last year. During the war, commercial-truck production has been sharply curtailed; many civilian vehicles are beyond repair and must be replaced if essential transportation is to be maintained. For example, light trucks have been out of production since early in 1942, but the new program includes 40,000.

FOR FOREIGN HIGHWAYS

Another reason the commercial program is larger than last year's output is that allotments for the Foreign Economic Administration have been boosted, due to the reopening of the road into China, transportation needs in liberated areas, and an urgent demand for trucks in Brazil. The FEA program includes 11,800 trucks for China, a reserve of 11,400 for liberated areas, and 10,000 for Brazil.

The following table shows how the

commercial program has been reduced since October in all categories except lights:

	1945 Program		%
<u>Commercial</u>	<u>Oct.</u>	<u>Today</u>	<u>Change</u>
Lights.....	40,000	40,000	0
Mediums.....	160,000	144,180	-10%
Light-heavies	53,460	49,300*	-8
Heavy-heavies	15,850	11,950	-25
Total.....	269,310	245,430*	-9%

* Includes 11,800 trucks of semimilitary type for China.

The 1944 truck program was integrated—military and commercial production were on a par. But WPE's Requirements Committee, in setting up the 1945 program, specified that military production is to be accomplished at the expense, if necessary, of commercial, and that in the event of a conflict in the scheduling of components, those for military trucks should have preference. Also,

that deficiencies in meeting the authorized production schedules during the first six months of 1945 or in any subsequent calendar quarter may be made up only in the first month following.

Except in the case of light trucks, most of the recent boost in the truck program is scheduled for the second half of the year, because the required new facilities cannot get into operation sooner. Nevertheless, overall output (military and commercial) must rise 13% over the January production rate to meet average monthly requirements in the first half of 1945. However, the following table may overstate the production task ahead inasmuch as January was an abnormally low month, due partially to extremely bad weather:

	Jan. Prod.	Req. Rate 1st half	% Rise
Lights.....	21,621	24,975*	15%
Mediums.....	13,487	15,729	17
Light-heavies	25,457	27,640	9
Heavy-heavies	5,628	6,484	15
Total.....	66,193	74,829*	13%

* Includes commercial light trucks for first time since 1942.

In the case of heavy-heavies, the table fails to tell the whole story. The real production difficulty lies in the increasing demand for tactical trucks with six-wheel drives in preference to semicommercial types with two- and four-wheel drives. These require three, instead of one or two, driving axles and are much more complex to build (WP-Dec 16'44,p7). Nearly half of the output in the second quarter of the year will be in six-wheel drive types, as compared to less than one-fourth in the final quarter of 1944.

Shortage of components—engines, axles, transmissions, winches, tires—is currently the biggest bottleneck in truck production. Facilities expansions

for components are planned and some are under way. However, the primary difficulty in most instances is the lack of manpower, especially skilled workers, in forges and foundries which produce basic component parts. Drafting of men up to and over 30 may increase the labor shortages elsewhere. For example, Kearney and Trecker, builders of transmissions, report that 265, or 9%, of their workers have been reclassified 1A. Of these, 238 are in the transmission plant and represent 18% of the workers.

CRANK STRIKE

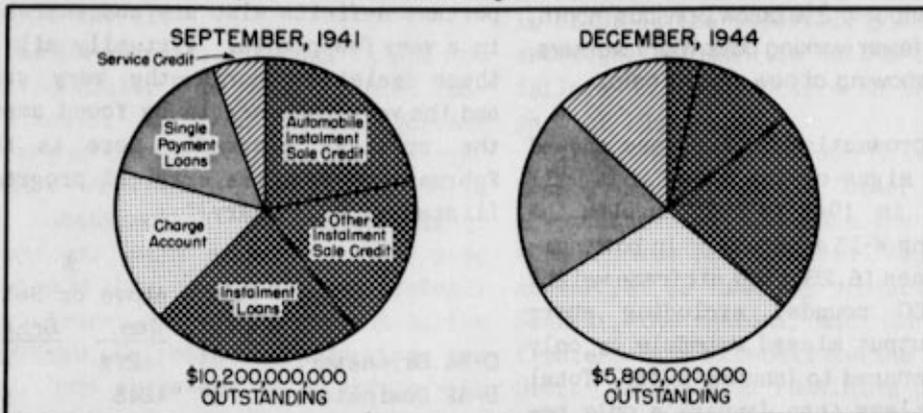
March production at General Motors Truck and Coach Company—biggest producers of light-heavy, six-wheel drive trucks—will be seriously affected by a strike at Jackson Crankshaft Company which started February 27. This company has been furnishing 490 finished cranks per day for these truck engines, and each day's tie-up means a corresponding loss in truck production. GMC has a second source supplying 325 cranks per day, but Jackson is the principal supplier. Lack of engines will overshadow all other shortages at General Motors in March.

Another strike, at Dodge, lost eight days' production of military light trucks, semimilitary trucks for China, and commercial vehicles.

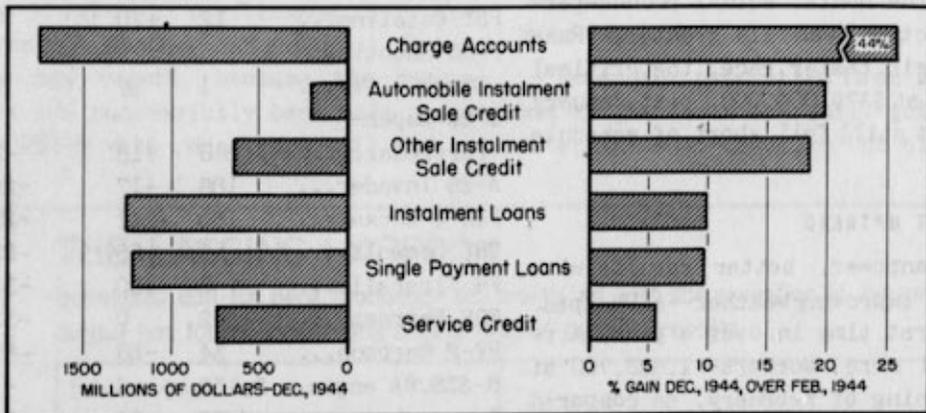
Another factor which may stand in the way of achieving the new truck program is the simultaneous expansion of other munitions programs—tanks ammunition, heavy artillery, etc.—which compete for materials, manpower, and in some cases for components or component parts. Truck manufacturers, for example, report considerable difficulty in placing orders on steel mills; the mills, they claim, are loaded with directives from competing programs. In addition, some steel shapes are in short supply.

REVERSAL IN CONSUMER CREDIT

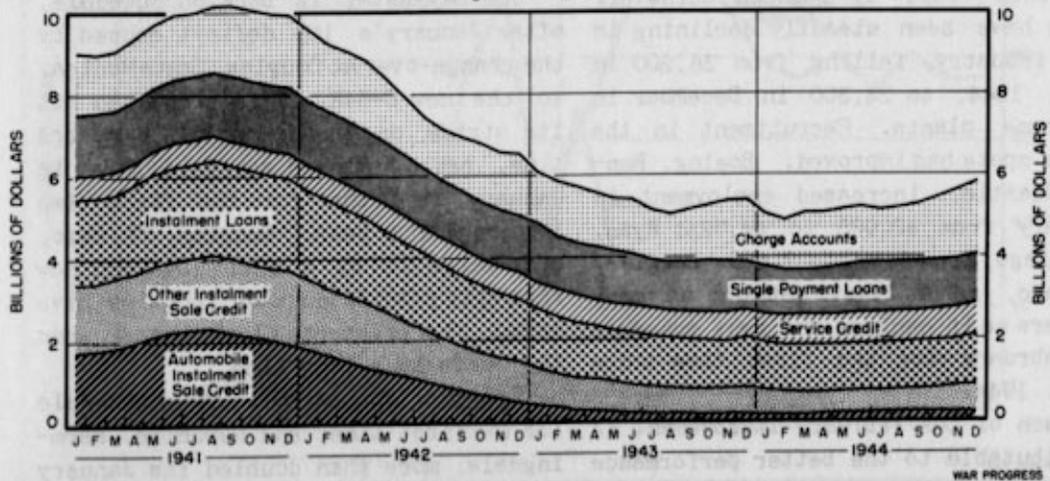
1. Here is how the emphasis shifted after Regulation W went into effect:



2. However, all types of short-term consumer credit increased since February, 1944,



3. So that total amounts outstanding were up 19% by the end of the year.



Planes - Picking Up Speed

Pounds per day rise 11% in February, though total output is 2% below previous month, due to fewer working days. More workers, better showing of new models help.

AIRCRAFT production in February showed the first signs of the speed that will be needed in 1945 to keep up with the fast-moving W-13 schedule. In both number of planes (6,286) and airframe weight (71,251,000 pounds, excluding spare parts), output missed schedule by only 2%, as compared to January's 4%. Total output was less than January's only because there were three fewer working days in the month; actual pounds-per-day production was 11% greater. Running in their faster race, the critical programs, at \$379,000,000, beat January by 21% but still fell short of schedule by 9%.

EMPLOYMENT UPTREND

More manpower, better results with new models, improving weather—all helped. For the first time in over a year, aircraft had more workers—1,683,700 at the beginning of February, as compared to 1,667,077 on January 1. Employment has been aided by reduced turnover. Quits have been steadily declining in the industry, falling from 36,200 in July, 1944, to 24,300 in December in airframe plants. Recruitment in the tough spots has improved. Boeing, Renton-Seattle, increased employment in January from 42,998 to 44,723; Ryan, San Diego, from 6,500 to 7,600. Douglas, Chicago, is at last getting as many workers as it can use and beat schedule in February for the first time since June, 1944.

Much of the February improvement is attributable to the better performance

of a few new models. The month's important deficits also are concentrated in a very few planes. Virtually all of these decisive records—the very good and the very bad—are to be found among the critical aircraft. Here is the February score of the critical programs (listed as of January):

	%		
	Feb. Accept.	Above Jan.	or Below Sched.
C-54 Skymaster.	71	+27%	+7%
B-32 Dominator.	17	+243	+6
P-47N Thunder-			
bolt.....	253	+102	+1
PBY Catalina...	12	+20	0
P-80 Shooting			
Star.....	1	∞	0
B-29 Super-			
fortress.....	250	+18	-3
A-26 Invader...	188	+17	-25
F4U-4 Corsair..	150	+241	-25
TBY Seawolf....	6	-25	-25
FR Fireball....	6	+50	-33
PBF Bearcat....	2	0	-33
PV-2 Harpoon...	34	-50	-60
R-3350BA engine	2,139	+6	-1
Jet engines....	25	-34	-52

The Skymaster is back on schedule, after January's 16% deficit caused by the change-over at Douglas, Santa Monica, to the new C-54E. This plant has hit its stride on the new model in record time, having missed schedule only in January, and that for the first time in more than a year. Douglas, Chicago, beat schedule by a full 10%; and now that this plant's manpower troubles have eased, its prospects look better than they have in a long time.

The new Thunderbolt made schedule for the first time, and Republic, Farmingdale, more than doubled its January

production as troubles with the wing were ironed out. The way looks clear for this plane from here on.

CORSAIR TRIPLES

And the Corsair, although it did not make schedule, more than tripled January output and thus had an important bearing on the improved February record. Trouble with the scheduling of parts and subassemblies at Chance-Vought, Stratford, main reason for the poor showing of this new plane, has probably been cleared up. But the current strike at Briggs, Detroit, where the wings are made, now threatens to interfere with March production.

While not so important numerically, the on-schedule performance of the Catalina is another bright spot in the February record, because the change-over has successfully been made to the new PBV-6 with redesigned tail and im-

proved radar equipment. The Navy is satisfied that the new management at Consolidated Vultee, New Orleans, is doing a good job, and the only trouble in sight is the possibility that parts shortages may turn up as the result of failure to place orders in the latter part of 1944.

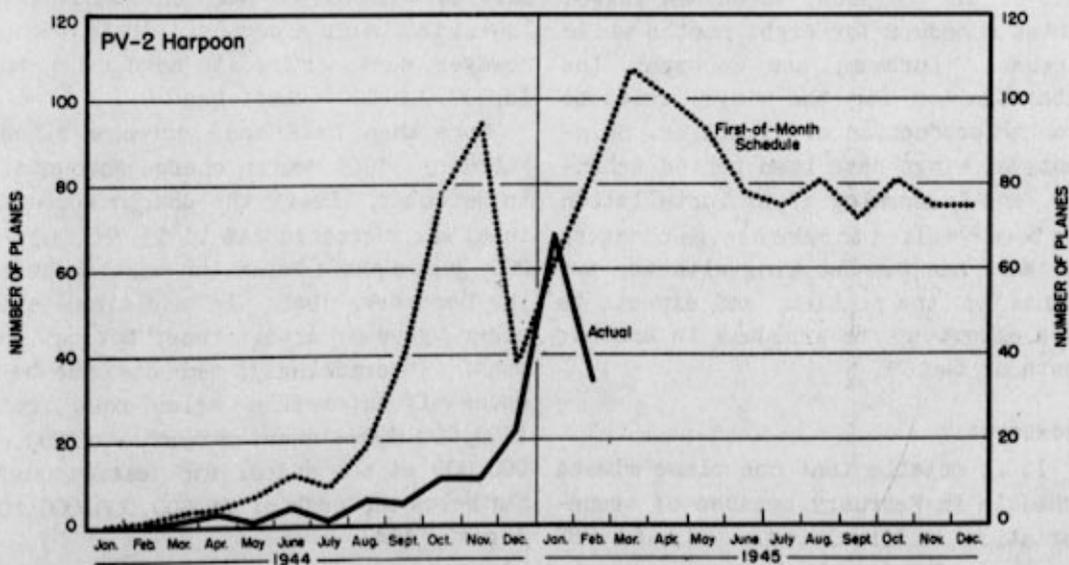
If the February speedup is to be continued in future months, other new models will have to duplicate the performance of these four planes. Four others are not yet in quantity production: the Seawolf, the Bearcat, and the two jet fighters—the Fireball and the Shooting Star. As for the remaining planes on the critical list, they all spell trouble in one form or another.

WHAT CAN IT DO?

Dominator production is on schedule, but flight tests are still going on to determine what function the plane will

THE LAGGING HARPOON

Schedules call for peak production this month but, with the exception of January, output has fallen consistently behind first-of-month forecasts.



Note: First-of-month schedule through January, February 1 schedule thereafter.

WAR PROGRESS

be able to perform and what changes will be necessary in completed models to fit them for this function.

LOWER GOAL

The W-13 schedule for Superfortresses had to be revised in February. Boeing, Renton-Seattle, has found it difficult to train new workers fast enough to turn out planes from its four assembly lines at the rate called for, and its schedule has been reduced. The monthly build-up is now less abrupt, and the new schedule levels out at 180 planes per month after July instead of mounting to 200. Increased output will be called for from Bell, Atlanta, and Martin, Omaha.

The Invader had a bad month, running into trouble at two plants. Douglas, Long Beach, had to shift workers to modification of a new version of the plane and was five under schedule. Douglas, Tulsa, missed badly, turning out only 103 of a scheduled 159 planes. Production was interrupted by the installation of a new assembly line needed to meet future schedules.

Worst record of any urgent plane is that of the Harpoon, which has lagged behind schedule for eight months while Lockheed, Burbank, and Goodyear, the subcontractor for the wings, tried to iron out production difficulties. Shipments of wings have been behind schedule, and reworking after installation has been required to make design changes. The Navy has been working with the two plants on the problem, and expects to have output up to schedule in another month or two.

SNOWBOUND

It is notable that one plane missed schedule in February because of transportation difficulties. Only 21 SBF

Helldivers were turned out at Fairchild, Montreal, instead of the 30 scheduled because engines being shipped to the plant were buried in the Buffalo snows.

To date, this is the only cut in plane production traceable to the nondelivery of parts and assemblies during the bad weather, but a great deal of hard work will be required to prevent the effects from showing up in the March and April production records. Aside from this difficulty, prospects look bright for a continuance of the February speedup in the months ahead.

War Progress Note

GIVING MORE CREDIT

BACK in September, 1941, Regulation W was put into effect in order to restrict consumer credit. From \$10,200,000,000 at the end of that month, the outstanding volume began to decline. At first, charge accounts were not affected. But by May, 1942, all types of consumer credit—charge accounts, installment credit, loans, etc. were under restriction. The downtrend continued more or less steadily until February, 1944, when only \$4,900,000,000 was outstanding—lowest in almost a decade. Since then, however, consumer credits have risen to \$5,800,000,000 (chart page 9).

More than half the increase since February, 1944, was in charge accounts. In December, 1944, the charge account total was increased 44% to \$1,750,000,000, just a shade below the wartime peak in December, 1942. In addition, all other types of credit rose, but not so much. Interestingly, amounts due because of automobile sales rose from \$170,000,000—lowest on record—to \$200,000,000 at the end of the year, though far below the peak of \$2,300,000,000 in August, 1941.

War Progress is loaned to you for official use. It contains CONFIDENTIAL information affecting the security of the United States. Revelation of its contents in any manner to unauthorized persons is prohibited by the Espionage Act.

OFFICIAL RULES for its CUSTODY

- (1) Not to permit information from any copy in their custody to become available to anyone except a Government employee under their immediate supervision who will be bound by the restrictions hereby agreed to and who requires access to WAR PROGRESS in connection with his official duties.
- (2) To keep all copies in a securely locked container when not actually in use.
- (3) Not to incorporate information from WAR PROGRESS in any record unless the use of such record is restricted as if the record were itself a copy of WAR PROGRESS.
- (4) To give prior written notice of any change of address.
- (5) On written request, or before separation from the Government position which entitles them to receive WAR PROGRESS, to return all copies charged to their account.

WAR PROGRESS

C. F.
War Production Board

~~*Confidential*~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 8(E) and (D) ~~(S)~~
Commeros Dept. Letter, 11-14-73
By RHP, Date MAR 14 1973

SRO in the Rating Line

x4735

Number 235

March 17, 1945

WAR PROGRESS

Prepared in the War Production Board

J. A. Krug, Chairman

War Progress is a confidential report designed to provide a coordinated and continuing picture of the overall war program for the various war agencies. To this end, it presents, analyzes, and interprets basic statistical and economic information, and from time to time examines the pros and cons of controversial questions.

Although War Progress is an official publication of the War Production Board, statements in it are not to be construed as expressing official attitudes of the Board as a whole, or even of individual members. Conclusions, whenever reached, should be considered editorial conclusions.

War Progress is prepared by the War Progress Staff:
James J. Cullinane, Thomas A. Falco, Roy T. Frye
(drafting), Winona Hibbard, A. R. Hilliard, Morris Katz,
Chester L. Kieffer, Martha Menaker, J. S. Werking (pro-
duction).

This report contains CONFIDENTIAL information affecting the defense of the United States. See inside back cover for rules of custody.

SRO in the Rating Line

Some 80% of production is now in AA-1 band, as result of heavy procurement for short-term delivery, and top-urgency programs must stand in line for materials.

UNDER the impact of drastically increased production schedules with quick-delivery requirements, the War Production Board's priority rating structure is confronted with its gravest test in three years. Once again the top-priority rating band has become so congested that programs of extreme urgency must stand in line to get their orders filled.

Three years ago a similar situation brought about a reorganization of WPB's original rating structure—an elaborate affair with some 30 priority floors. So many claimants had obtained top ratings that A-1-a through A-1-j priorities (the highest then issued) lost most of their value; B ratings became meaningless.

So on top of the old ratings was erected a new structure of superratings—the current AA-1 through AA-5 series, with a super-super AAA band as a bottleneck breaker.

URGENT 30%

To avoid the strains that led to the first collapse, it was determined that allocations of AA-1 ratings should be restricted to not more than 30% of total production; only programs of extreme military urgency would receive them. Another 30% of production would be reserved in the AA-2 band for less urgent military and top-urgency civilian programs. The remaining 40% was to be scattered through the lower bands (then AA-3 and AA-4).

This determination withstood pressures for only one month before yielding to uprating demands from the AA-2 band. The two bands were consolidated because of the impossibility of drawing a fine line of urgency between them. The AA-2 band was abolished. The determination to restrict production in the AA-1 and AAA bands remained, however.

PRESSURE FROM BELOW

Soon it became evident that the gap between AA-3 and AA-1 was too great. Programs more urgent than the general average in the AA-3 band, but not quite deserving of AA-1 ratings, had no place to go. So an AA-2X band was created and later AA-2 was recreated. Then the new system functioned fairly smoothly. Production in the AA-1 band leveled off at some 64% of rated production. Nevertheless, pressures for upratings from the lower bands remained constant.

NO ROOM AT THE TOP

When munitions programs soared upward in the last quarter of 1944 and again in the first quarter of 1945, it became impossible to maintain even a semblance of the 60-40 rating balance. As a result of heavy procurement for short-term delivery, an estimated 80% of total production is now crowded into the AA-1 band. And in some critical components, such as small electric motors, malleable iron castings, and anti-friction bearings, 90% or more of orders have top-priority ratings. Expanded production schedules have created critical shortages where surpluses existed a few months ago. Now there are often

not enough materials for quick delivery of even AA-1 and AAA ratings.

Hence a call has arisen for a new super-super rating to identify programs having a higher urgency than the general average. But experience has shown how impossible it is to keep top-urgency bands narrowly restricted. A program of top urgency today may become less urgent next month, but once installed in a top-urgency band it is almost impossible to dislodge until surpluses accumulate.

WHO GETS IT?

Yet there is agreement that quick identification of orders for top-urgency programs through something more specific than an AA-1 or even an AAA rating is desirable when scheduling or expediting jobs are undertaken. For instance, a manufacturer of electric motors, with his order board jammed with AA-1 orders, cannot tell now whether he is producing for a critical tire expansion project or for a less urgent program.

In an attempt to remedy this, a priorities regulation has been proposed which would require both direct and indirect purchasers of an item to identify on their orders the program or the ultimate product into which the component part is to be assembled. Such a plan,

if administratively practicable, would undoubtedly facilitate WPB's scheduling job and enable the staff quickly to single out individual orders for preference treatment.

This idea is strongly reminiscent of identification systems tried in 1941 and early 1942 with the original priority certificates, and until the latter part of 1942 under Priorities Regulation 10. Experience then showed that when identification was attempted on an across-the-board basis, widespread misidentification followed. Producers complained that they had to look into a crystal ball to identify the end use of products they were making for stock. However, it is probable that such identification can be carried out on a limited basis.

BASIC RATINGS

The foundation of WPB's rating structure is the Urgency Rating Division in the Office of the Program Vice Chairman. Here basic ratings are established for programs or projects by an Urgency Rating Committee, headed by the director of the division and comprising representatives of the claimant agencies.

From time to time, outstanding ratings are reviewed by this committee. For instance, penicillin plant facilities were recently downrated from AA-1 to AA-3 when supplies became comfortable, two high-octane plants were uprated from AA-3 to AA-1, and textile machinery went from AA-3 to AA-1 when cotton duck became critical.

Ratings are extendable. A prime contractor scatters his AA-1 rating among subcontractors and they pass it on to sub-subs. Inflation results as ratings pass down the line. For instance, the prime contractor may have been assigned a rating pattern—25% of

IN THIS ISSUE:

SRO IN THE RATING LINE	1
KEY STATISTICS OF THE WEEK	4
PHILIPPINE POTENTIAL IN MATERIALS	5
SELECTED MONTHLY STATISTICS	9
ZINC—BACK ON THE URGENCY LIST	10

production, AA-1; 25%, AA-2; and 50%, AA-3. To avoid change-overs on the production line and facilitate shipments, subcontractors are inclined on small orders to apply the prime's AA-1 rating to the entire order. Rigid enforcement of rating patterns becomes increasingly difficult the deeper down the production line orders go.

TAKING NO CHANCES

When materials become tight, some purchasers are inclined to overorder to obtain full benefit of their highest priority, although this is forbidden by priorities regulations. A plant with a 75-15-10 rating pattern, for instance, might order 100 motors to obtain 75 actually needed, realizing that the low-rated orders may not be filled without long delay. Holders of AA-2 and lower ratings appeal for upratings when they can't get their orders filled. And as the AA-1 band becomes crowded, occupants there begin appealing for AAA ratings.

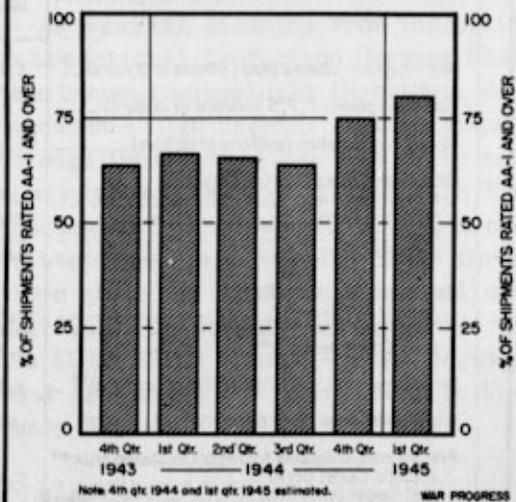
Appeals go to the Special Rating Division. This was created when the new rating system was set up in the spring of 1942. Its job is to issue AAA and out-of-line ratings and special directives, and to resolve all conflicts between competing claims of WPB industry divisions and claimant agencies.

VOLUME BUSINESS

Since 1942 the Division has handled 133,000 cases. Of these 93,000 were appeals for AAAs; 60,000 were granted, the others denied. Out-of-line ratings (upratings from low to higher bands) totaled 33,000, and 7,000 special directives were issued. Issuance of AAA ratings is increasing. In October, 1,664 were issued; in November, 1,966. And like AA-1s, AAAs are extendable. Special directives—used only to assist pro-

THE RACE FOR RATINGS

When war orders were boosted last fall, top ratings became necessary to get scarce materials. Result: an estimated 80% of 'B' products shipped in first quarter of 1945 were AA-1 or better, against 64% last summer.



grams of highest urgency—can not be extended and are usually employed when a manufacturer can readjust his production without outside help.

Although conflict is inherent in every uprating appeal, cases are disposed of within one and one-quarter days on an average. Since each case means robbing Peter to give preferential treatment to Paul, the Division first assigns a WPB analyst to check the validity of Paul's claim. And it asks the industry division and the claimant agencies doing business with Peter to ascertain how much he will be hurt by the robbery. Finally it checks with the manufacturer whose order board will be disrupted if Paul's orders are shoved to the top of the list. When all the facts are in, final decisions are made by the Division Director. Only a handful of appeals from these decisions have been referred to the Program Vice Chairman.

Another form of WPB rating evaluates urgency of manpower needs and is based

KEY STATISTICS OF THE WEEK

	Latest Week	Previous Week	Month Ago	Same Week			
				1944	1943	1942	1941
War Program- checks paid (millions of dollars) ---	1,805	1,921	1,688	1,836	1,771	585	162
War bond sales-E, F, G (millions of dollars) ---	196	204	220	101	239	124	-
Money in circulation (millions of dollars) ---	25,907 ^P	25,864 ^R	25,533	21,006	16,115	11,474	8,811
Wholesale prices (1926=100)							
All commodities ---	105.1 ^P	105.8	104.9	103.4	103.2	95.7	80.5
Form products ---	127.1 ^P	127.2	126.8	123.4	123.5	100.1	70.5
Foods ---	104.5	104.5	104.9	104.6	107.0	95.7	75.2
All other ---	99.4 ^P	99.4	99.3	98.2	96.6	94.5	84.6
Petroleum (000 barrels)							
Total U.S. stocks* ---	396,743	398,313	404,784	415,187	437,269	497,285 ^E	500,473 ^E
Total East Coast stocks* ---	56,173	57,394	59,987	55,846	43,985	73,388	78,308
East Coast receipts** ---	1,966	1,909	1,695	1,711	1,105	N.A.	N.A.
Bituminous coal production (000 short tons)** ---	1,892	1,968	1,947	2,095	2,115	1,918	1,849
Steel operations (% of capacity) ---	94.5%	95.9%	87.9%	96.8%	99.1%	97.4%	96.8%
Freight cars unloaded for export, excluding grain**							
Atlantic Coast ports ---	3,502	3,302	3,170	2,934	1,440	1,553	1,123
Gulf Coast ports ---	431	509	510	444	351	393	367
Pacific Coast ports ---	1,468	2,078	1,454	970	293	293	104
Department store sales (1935-39=100)† ---	204	182	172	153	150	130	101

^PPreliminary ^RRevised *Excludes military-owned stocks ^EEstimated **Daily Average N.A. Not Available † Unadjusted

on the National Production Urgency List established by the Production Executive Committee in November, 1943. Actual plant ratings are assigned locally by the 121 Area Production Urgency Committees (WP-Sep23'44,p7). These ratings were recently increased from five to seven groups:

I. Plants engaged on certain secret production.

II. Reserved solely for War Manpower Commission use to meet critical local emergencies.

III. For plants on the National Production Urgency List and those given an equivalent rating by area PUCs and whose production is behind schedule or threatens to fall behind.

IV. Plants otherwise eligible for Band III but whose production is not behind schedule.

V. Plants producing civilian and less-urgent military items which are behind schedule but which have not been included on the National Production Urgency List.

VI. Plants otherwise eligible for Band V but which are not behind schedule.

VII. All other plants whose production is determined by Area PUCs to be inadequate for minimum civilian requirements.

VALUABLE KNOW-HOW

Originally the Production Urgency Committee and the urgency ratings were created solely to guide the War Manpower Commission in its evaluation of the labor needs of war production plants. However, the know-how gained by the committees in establishing the relative

urgency of all war plants in their areas has developed as a valuable asset in meeting emergencies other than labor shortages.

In the flood areas recently, local PUCs determined which plants were to receive top priority in allocations of electric power. Similar PUC ratings were applied in areas where natural gas supplies became critically short.

When the threat of a coal strike developed, the Solid Fuels Administration asked WPB to list the relative urgency of every plant in the country as a guide in determining where extraordinary steps would have to be taken to prevent shutdowns because of fuel shortages. This task was assigned to the Area Production Urgency Committees.

Here the Committees will exercise their own judgement in rerating plants on the basic urgency list. For instance, a plant now in the Urgency Band V might be moved to Band III for the purpose of securing fuel.

As benefits stemming from inclusion on the National Production Urgency List have become increasingly important, demands for a high urgency rating, either through inclusion on the list or by action of area PUCs, have increased. The Production Executive Committee has rewritten the national PUC list three times since the first one was compiled. Currently 28 programs are carried on the list; 2,592 plants are in Urgency Band III and 2,601 plants are in Urgency Band IV.

Philippine Potential in Materials

Once U.S. source of hemp, copra, sugar, etc., the islands are economically as well as strategically important. But rehabilitation must precede resources development.

IN THE PHILIPPINES, American forces are—for the first time—driving the Japanese from bases of economic, as well as strategic, importance. The islands are rich in raw materials. The U.S. needs—abaca, coconut oil, chrome, manganese, copper, sugar, lumber. Most of these resources are still behind enemy lines. And since the Jap is doing everything in his destructive power to deny the U.S. access to them, many months may elapse before ships now returning in ballast from Pacific bases will be able to fill their holds with the islands' resources.

U.S. efforts to secure abaca point up the problems. This is the fiber from which Manila hemp is produced, and no

satisfactory substitute for it in marine rope has been discovered. At the start of 1942 the abaca stockpile was 129,000,000 pounds. By the end of 1944 it had dwindled to some 10,000,000 pounds, and tightly restricted allocations for the first quarter of 1945 alone total 7,700,000 pounds.

LITTLE ABACA

Leyte and Samar, first islands from which the Japs were driven, are hemp production centers. Fighting had not ceased on them when abaca purchasing missions landed. Results were disappointing; only a bare trickle of abaca has started to flow back to the United States. Under Jap occupation, most of the abaca workers went back to their own small farms, started raising food. There was no point in working for money—it couldn't buy anything. Food was unpurchasable, civilian goods had vanished from the stores.

When the Americans landed, G.I. Joe found he could get a whole month's laundry done for three "C" rations, but for \$10 he couldn't even get his shirt washed.

FOOD FIRST

Abaca buyers found the logic of the Filipino farmers unanswerable. If they stopped raising food to strip abaca, they would starve; they would work only if food and clothing were made available. As a result, limited shipping space for food for abaca workers has been allocated.

Ironically, Japanese around Davao on Mindanao Island supplied 80% of U.S. abaca requirements before the war. They operated modern stripping machinery, produced a superior grade of fiber. But American bombers blasted the docks at Davao early in the war, and the Japanese have been able to move only small amounts from the abaca stockpiles there. Our troops have landed on Mindanao, but whether they'll find an abaca stockpile when they reach Davao is a matter of conjecture.

TRANSPORT BOTTLENECKS

Copra is the next most sought-after raw material. This is the dried coconut meat from which oil is produced, and coconut oil has an unusually high glycerin content. The Japanese concentrated on glycerin production in the copra processing mills in Manila but had difficulty securing coconut supplies because of transport bottlenecks. Ruined bridges and lack of interisland shipping will also handicap our efforts to move copra to ports. And again we will be faced with the problem of supplying workers with food and incentive goods.

Before the war one-third of the world's copra exports came from the Philippines and well over 90% of these went to the U.S. for processing. Philippine mills

produced 200,000 tons of oil in 1940, exported 170,000 tons to the U.S.

For operations in China, margarine and lard made from coconut oil will be valuable food supplies for our allies; coconut fats are a delicacy in the Orient. Philippine mills produced 12,000 tons of these products in 1940.

STANDING TIMBER

The vast forest reserves of the Philippines—some 460,000,000,000 board feet of standing timber—may be utilized in future operations. Currently, all lumber used in Pacific operations is shipped from the United States. Indicated requirements for the Pacific for the first quarter of 1945 total approximately 200,000,000 board feet, and these requirements will be stepped up when the great bases needed for final land operations against the enemy are being built.

In 1940 some 817,557,000 board feet of timber were cut by 148 sawmills in the Philippines. The Insular Lumber Company on Occidental Negros is the largest hardwood sawmill in the world, with a daily capacity of 125,000 board feet. The Findlay Millar Timber Company at Lanao is almost as large, with a daily capacity of 120,000 board feet.

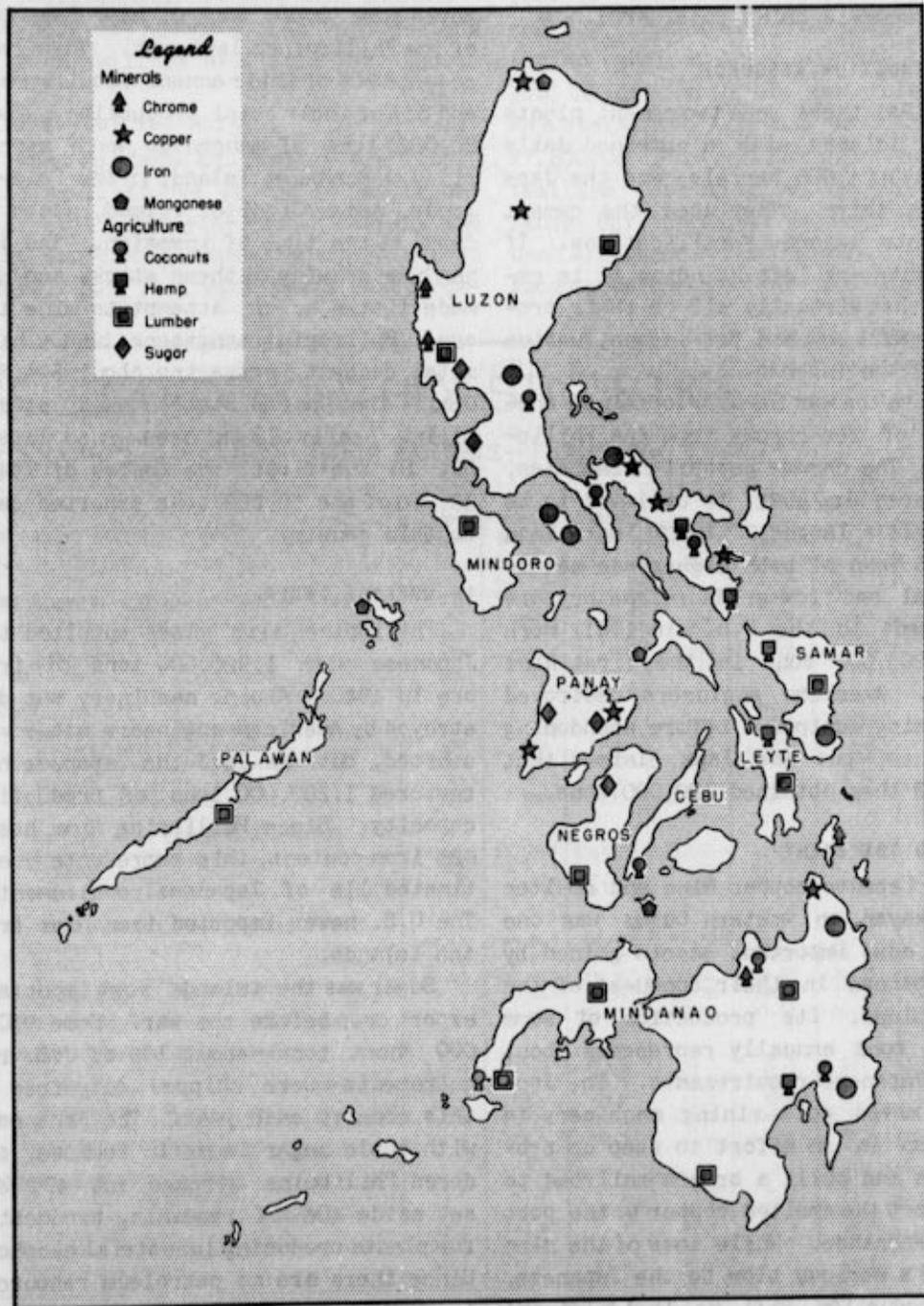
USEFUL TO JAPS

Although beset by transport bottlenecks and harassed by guerillas in the woods, the Japanese have gone in for intensive lumber production. They use it to build their PT-boats, for interisland ships, for barracks, fortifications, mine props, and piers. In 1940 Philippine lumber exports to the United States totaled some 33,000,000 board feet, most of it mahogany for furniture and cabinet making. But in the Orient "Philippine mahogany" is regarded as an all-purpose hardwood.

Reconstruction of Manila and other

THE PHILIPPINES—RICH IN RESOURCES

Economically as well as strategically important, the islands are a potential U.S. source of needed hemp, coconut oil, lumber, etc.



WAR PROGRESS

Philippine cities will put a heavy burden on the island sawmills. Feasibility of sending additional sawmill equipment to the islands to meet military requirements—and thereby save time and shipping space—is being considered.

RECONSTRUCTION RESOURCE

In 1941 there were two cement plants in the islands with a combined daily capacity of 4,600 barrels, and the Japs built a third. They used the cement for their island fortifications. If the plants are left standing it is expected that virtually all of their production will be used for reconstruction work on the islands.

Before the war the U.S. obtained one-fourth of its chrome from the Philippines. The chrome deposit at Zambales, discovered in 1922, is believed to be the world's largest. In 1940 more than 155,000 tons of both high-grade metallurgical and low-grade refractory ore were sent to the U.S.; in 1941, more than 205,000 tons in the first nine months. American engineers destroyed all mining equipment before abandoning the mines, but the Japs claimed that in 1943 they obtained 120,000 tons.

BLOW TO THE ENEMY

The Lepanto copper mine and smelter at Mankayan on western Luzon was one of the most important assets gained by the Japanese in their conquest of the Philippines. Its production of some 18,000 tons annually represents about 15% of Japanese requirements. The Japanese moved gold mining machinery to Mankayan in an effort to step up production and built a branch railroad to transport the smelted copper to the port at San Fernando. While loss of the mine will be a serious blow to the Japanese, its production will be insignificant

alongside U.S. copper requirements of 3,000,000 tons annually.

DRAWING ON THE STOCKPILE

Reports indicate that the Japanese moved some 30,000 tons of manganese out of the Philippines last year. This represents 30% of their annual requirements and 33% of their total production. Some 80,000 tons of manganese were stockpiled on Bushanga Island, in the Palawan group, and on Siquijor Island, south of Cebu, at the time of invasion. The Jap has been drawing on these stocks and has made little or no attempt to mine the ore. Philippine manganese has a high metal content, averaging about 50% Mn. Until the United States began stockpiling, nearly all the ore went to Japan, but in the first nine months of 1941, 36,000 of the 50,000 tons exported came to this country.

IN WORKING ORDER

Philippine iron mines supplied the Japanese with 1,920,000 tons of iron ore in 1940. Mining machinery was destroyed by American engineers after war started, but by 1943 the Japanese had restored 1,200,000 tons of productive capacity. Since Philippine ore has a 62% iron content, this represents an estimated 11% of Japanese requirements. The U.S. never imported iron ore from the islands.

Sugar was the islands' most important export crop before the war. Some 950,000 short tons—about 30% of U.S. requirements—were shipped duty-free to this country each year. The Japanese, with ample sugar lands in Formosa, ordered Philippine acreage cut 40% and set aside 40% of remaining production for plants producing industrial alcohol. Since there are no petroleum resources in the Philippine Islands, the Japa-

nese used the alcohol as motor fuel.

A Foreign Economic Administration mission to survey potential Philippine sugar production has been appointed. It is believed that not more than 200,000—and possibly not more than 75,000—tons of sugar will be available for export.

RUBBER—BUT NOT MUCH

When Mindanao and Basilan are liberated small stocks of rubber may become available. Goodyear Rubber Company and American Rubber Company have plantations there, but in prewar years their com-

bined production was only 1,200 tons.

Rehabilitation of the islands' civilian economy to provide incentive goods for workers must precede any effective utilization of Philippine resources. But apart from this, humanitarian considerations dictate that the job be done with all possible speed. As a start, the Army has been allocated 17,300,000 yards of broad woven cotton textiles for distribution in the islands; Philippine War Relief, Inc., has been allocated 350,000 yards. Civilian food needs are being met from Army stocks.

SELECTED MONTHLY STATISTICS

Production—Disputes—Wage Earners—Hours and Earnings

	Latest Month ^a	Preceding Month	2 Months Ago	Some Month			
				1943	1942	1941	1939
PRODUCTION INDEX-INDUSTRIAL (1935-39=100)^f	231	230	232 ^g	223	177	139	98
Total manufacturing	248	248	248 ^g	242	186	144	97
Durable	342	342	341 ^g	334	232	170	92
Nondurable	172	171	173	170	148	122	101
Minerals	133	131 ^g	140 ^g	119	125	114	103
LABOR DISPUTES							
Number of strikes in progress	275	350	425	207	239	349	323
Workers involved (thousands)	52	105	220	195	43	110	72
Number of strikes beginning in month	240	280	375	192	156	240	203
Workers involved (thousands)	44	85	200	91	27	92	51
Man-days idle (thousands)	228	380	710	452	331	663	513
NUMBER OF WAGE EARNERS (thousands)							
All manufacturing	13,097	13,184 ^g	13,155 ^g	13,503	11,456	9,580	7,684
Durable	7,780	7,798 ^g	7,783 ^g	7,875	6,107	4,798	3,343
Nondurable	5,317	5,386 ^g	5,372 ^g	5,628	5,349	4,782	4,341
AVERAGE WEEKLY EARNINGS (thousands)							
All manufacturing industries	47.45	46.86 ^g	46.94 ^g	44.58	40.27	32.18	25.23
Durable goods	53.69	53.07 ^g	53.18 ^g	50.50	46.28	36.93	28.50
Nondurable goods	38.40	37.87 ^g	37.97 ^g	35.61	32.08	26.93	22.43
Bituminous coal mining	50.39	49.66 ^g	52.34 ^g	52.72	38.25	33.38	24.65
Metalliferous mining	45.98	44.52	45.75 ^g	44.01	41.13	36.76	30.25
AVERAGE HOURLY EARNINGS (cents)							
All manufacturing industries	104.0	103.5 ^g	103.1	99.5	90.7	78.3	65.2
Durable goods	114.0	113.7 ^g	112.9	109.3	100.4	86.9	71.6
Nondurable goods	88.3	87.7	87.8	83.2	76.2	68.0	59.5
Bituminous coal mining	118.7	117.3	119.1	118.8	108.5	106.8	88.9
Metalliferous mining	101.9	101.4	101.5 ^g	99.2	93.1	85.4	73.7
AVERAGE HOURS PER WEEK							
All manufacturing industries	45.6	45.3	45.5 ^g	44.8	44.4	41.1	38.7
Durable goods	47.1	46.7	47.1 ^g	46.2	46.1	42.5	39.8
Nondurable goods	43.5	43.2	43.5	42.8	42.1	39.6	37.7
Bituminous coal mining	45.1	42.6	44.1	44.7	35.7	31.6	28.1
Metalliferous mining	44.7	43.8	45.0 ^g	44.2	44.0	43.0	41.2

^a Hours and earnings, December; all other, January.

^f Preliminary.

^g Unadjusted.

^h Revised.

Zinc - Back on the Urgency List

Slab requirements rise sharply while production sinks because of labor shortages at smelters. Consumption exceeds new supply and government stocks face extinction.

ALTHOUGH ZINC was one of the first metals to become tight at the outbreak of the war, the supply-demand situation had improved to such an extent by last summer that War Production Board officials were faced with the problem of disposing of an ever increasing surplus. Yet today the zinc position is more critical than ever—despite a currently plentiful supply of ores and concentrates.

LABOR ANGLE

The bottleneck is in the production of metallic slab zinc and is the result of labor shortages in smelters and refineries. Smelter output has been dropping for the past 12 months, until the current rate is 20% below the peak in 1943. New supply of slab zinc for 1945 is estimated at only 916,000 tons—a sharp drop from the two previous years:

	<u>1943</u>	<u>1944</u>	<u>1945</u>
	(000 tons)		
Primary prod...	957	888	805
Secondary prod.	34	36	39
Imports.....	64	67	72
Total.....	1,055	991	916

While production has been going down, requirements have been going up sharply in recent months because of boosts in munitions programs. Requirements for 1945, at 1,100,000 tons, are 200,000 tons more than estimated new supply this year. Since last fall, slab-zinc consumption has been outrunning production and eating into stocks. Consequently,

unless more workers are obtained to boost smelter output, government stocks (247,000 tons on January 1) will be virtually wiped out before the end of 1945 (chart, page 11), leaving industry stocks (104,000 tons on January 1) at a bare working level.

NOT THE WHOLE STORY

Estimated requirements—20% higher than 1944 consumption—don't tell the full story. For example, galvanized-sheet requirements are based on actual production schedules of the Steel Division for these sheets and consequently fail to reflect the real need. Furthermore, export requirements—down sharply from shipments last year—exclude needs for liberated areas.

Here's how estimated requirements compare with 1944 slab-zinc consumption:

	<u>1944</u>	<u>1945</u>	<u>%</u>
	(000 tons)		<u>Change</u>
Brass products....	359	450	+25%
Galvanizing.....	311	363	+17
Zinc-base alloys..	83	124	+49
Copper-base alloys	22	22	0
Rolled zinc.....	77	108	+40
Zinc oxide.....	22	20	-9
Exports.....	25	8	-68
Other uses.....	<u>26</u>	<u>21</u>	<u>-25</u>
Total.....	927	1,116	+20%

About 40% of this year's zinc requirements are for brass products—the bulk of which (95%) is for ammunition. (Ammunition brass strip is 30% zinc, 70% copper.) The need for zinc here has been affected not only by the stepped-up ammunition program, but also by the fact that brass mills permitted their

zinc inventories to run down to about a three-weeks' supply. This means that industry pipelines must be rebuilt for efficient operation. Another factor is the anticipated short supply of salvaged cartridge-case scrap; the tonnage of battle scrap returned to this country is expected to decline because of collection and shipping difficulties.

MANY USES

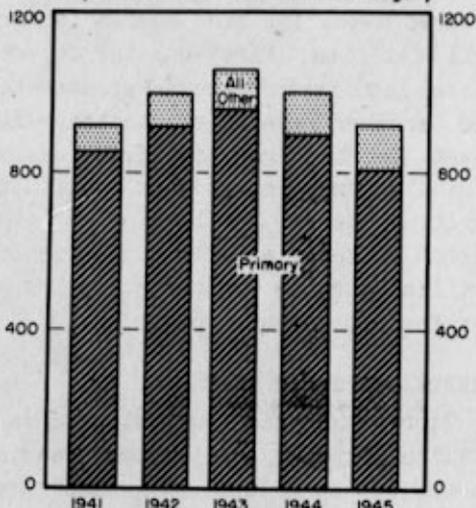
Next to brass, the heaviest demand for zinc is for galvanized (zinc-coated) products. Military needs have increased for galvanized wire for wire rope, field and assault wire, telephone wire, wire strapping, etc.; galvanized sheets for barracks, field hospitals, metal culverts, etc.; and piping, conduits, bulkheads, ventilators, etc. for ships. Practically all steel products for the Pacific theater must be galvanized because of corrosion, and rapid advances there have stepped up requirements. Essential civilian needs are galvanized ware for garbage cans; roofing and siding for various agricultural uses, such as corn cribs; and for water tanks, fencing, poultry netting, screen cloth, and so on.

HARD TO GET

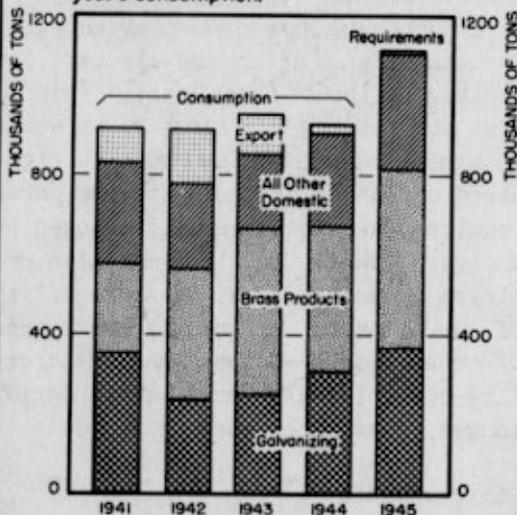
Especially critical is galvanized sheet metal—one of the most difficult steel items to procure. The Steel Division's stated requirements for galvanized sheet in the first quarter are 576,000 tons, as against fourth-quarter, 1944, production of 420,000 tons. Deliveries on orders placed now are not being promised before the fourth quarter. Directive action is being requested for sheets for Navy hangars, barracks, ammunition igloos, and storage building needs in the Pacific. Similar action is sought on packaging wire for skid pallets to speed up unloading of mer-

DWINDLING STOCKPILE

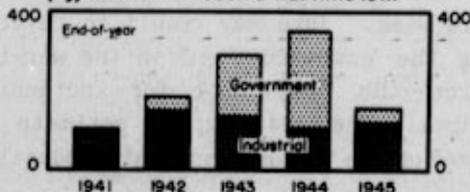
1. The new supply of slab zinc in 1945 will drop to the lowest levels since war began,



2. While requirements are 20% over last year's consumption.



3. And, with requirements exceeding supply, stocks will reach a wartime low.



WAR PROGRESS

chant vessels and landing craft in combat zones.

Boosted requirements for rolled (sheet, zinc products are due primarily to increased needs for zinc shells for dry-cell batteries. First-quarter dry-cell stated requirements are 50% greater than the December rate of production. Zinc sheet is also used for flare casing, lining for smokeless-powder containers, boiler plate for battleships and other combat vessels, and for such essential civilian uses as weather stripping and jar tops for home canning.

RUBBER COMPONENT

Zinc oxide has been classed as a critical product for the past year and is subject to allocation. Like carbon black, it is an essential component of rubber. It is widely used for pigments, medicinals, and smoke screens.

Zinc-base alloys are used extensively for stamping dies in the aircraft industry. Without these easily worked dies for molding and forming, it would be almost impossible to attain the high-speed output of aircraft stamped parts required to meet the rapid changes in design. Zinc die castings are also employed to achieve fast mass production of small parts for nearly every type of combat weapon—fuses, hand grenades, fire-control instruments, radio parts, gauges, gunsights, etc.

FEWER WORKERS

Because of the critical situation, zinc smelters and refiners were placed on the National Production Urgency List this week. This may result in reversing the downward trend in the working force—the only hope for increasing output. The 1945 supply estimate is based on the assumption that production

will continue at the current level, but employment is 8% under a year ago, due to the drafting of workers, comparatively low wages, difficult working conditions, and the fact that no particular effort was made to keep workers when there was a surplus of zinc. More than 1,000 workers are needed at the 22 primary and eight secondary smelters and refineries.

FOREIGN SUPPLIERS

Imports account for only about 8% of the estimated slab-zinc supply, with the bulk coming from Mexico and Canada.

The decline in slab-zinc supply has increased the tightness in two byproducts: sulfuric acid, the most widely used basic chemical (WP-Dec9'44,p9), and cadmium. Cadmium, used for plating as a protection against corrosion and in bearings, has been under the strictest conservation and allocation measures since the war started and is denied even for many military uses.

ALLOCATED AGAIN

The shortage in zinc has made it necessary to put the metal back under allocation so that users can be directed out of the scarce into the more plentiful grades, and all zinc spot authorizations are voided after April 1. Order M-11b prohibits nonessential uses and limits other uses to 80% of 1941 consumption.

The impact of the shortage on civilian use of zinc will be felt primarily in galvanized products—garbage pails, buckets, fencing, pipe for water and steam lines, etc. But the increased military demand for rolled strip will reduce production of other civilian items, particularly dry-cell batteries, home canning closures, and weather stripping.

War Progress is loaned to you for official use. It contains CONFIDENTIAL information affecting the security of the United States. Revelation of its contents in any manner to unauthorized persons is prohibited by the Espionage Act.

OFFICIAL RULES for its CUSTODY

- (1) Not to permit information from any copy in their custody to become available to anyone except a Government employee under their immediate supervision who will be bound by the restrictions hereby agreed to and who requires access to WAR PROGRESS in connection with his official duties.
- (2) To keep all copies in a securely locked container when not actually in use.
- (3) Not to incorporate information from WAR PROGRESS in any record unless the use of such record is restricted as if the record were itself a copy of WAR PROGRESS.
- (4) To give prior written notice of any change of address.
- (5) On written request, or before separation from the Government position which entitles them to receive WAR PROGRESS, to return all copies charged to their account.

WAR PROGRESS

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 3(E) and (D), and (E)
Commacon Dept. Letter, 11-18-72
By BHE, JHC

MAR 14 1973

Economic Data
Special Articles

WAR PROGRESS

C. F.
War Production Board

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 5(D) or (E)
Commerce Dept. Letter, 11-14-38
By BHP, Date

MAR 14 1973

February Production: Too Few Days

14735

Number 236

March 24, 1945

R
COURIER SERVICE CONTROL RECORD

FROM STATISTICS DIVISION <small>(DIVISION OR OFFICE)</small>		TO: The President <small>(DIVISION OR OFFICE)</small>	
RCS <small>(NAME)</small>		<small>(NAME)</small>	
<small>(ROOM NUMBER)</small>	<small>BUILDING</small>	The White House <small>(ROOM NUMBER)</small>	<small>(BUILDING)</small>
DESCRIPTION OF DOCUMENT:			
		236	3
		1	
COPY 3 Addressee's Copy		THE SERIAL NUMBER IN THE UPPER RIGHT-HAND CORNER SHOULD BE IDENTICAL TO NUMBER ON SENDER'S RECEIPT	

WAR PROGRESS

Prepared in the War Production Board
Bureau of Program and Statistics

War Progress is a confidential report designed to provide a coordinated and continuing picture of the overall war program for the various war agencies. To this end, it presents, analyzes, and interprets basic statistical and economic information, and from time to time examines the pros and cons of controversial questions.

Although War Progress is an official publication of the War Production Board, statements in it are not to be construed as expressing official attitudes of the Board as a whole, or even of individual members. Conclusions, whenever reached, should be considered editorial conclusions.

War Progress is prepared by the War Progress Staff: James J. Cullinane, Thomas A. Falco, Roy T. Frye (drafting), Winona Hibbard, A. R. Hilliard, Morris Katz, Chester L. Kieffer, Martha Menaker, J. S. Werking (production).

This report contains CONFIDENTIAL information affecting the defense of the United States. See inside back cover for rules of custody.

February Production: Too Few Days

Daily rate up, despite weather, labor shortages, but total falls 2% below January and schedule. Critical ASF artillery, aircraft, mortars make big monthly gains.

ALTHOUGH February was another month of cold weather, snowbound freight, and spot manpower shortages, war plants turned out munitions at a higher daily average rate than in January. However, because February was a shorter month, total production slipped 2% below the preceding month and, at \$4,736,000,000 (preliminary), registered its fourth consecutive decline (chart, right). It is noteworthy that if February had had two more working days, output could have topped the \$5,000,000,000 mark, making February the best month since last October.

Those programs which were due to rise—about two-thirds of total munitions—rose, but not enough; they went up 4% as against a scheduled 7%. On the other hand, those programs slated to decline went down somewhat more than scheduled—12% versus 11%. As a result, overall munitions production missed the goal by 2%.

GAINED BUT MISSED

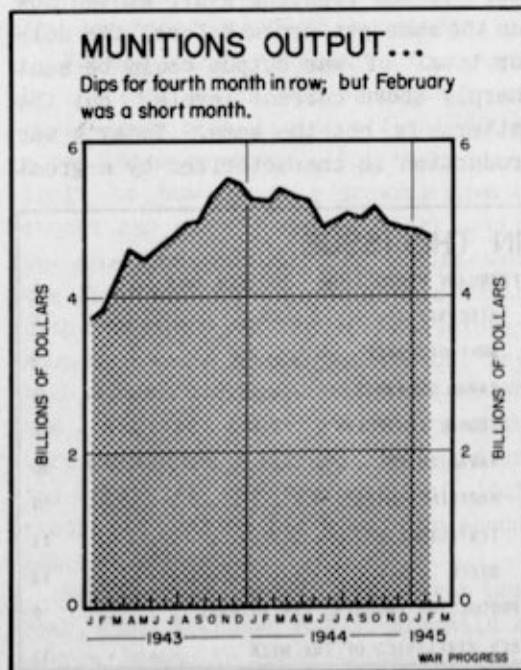
Among major munitions groups, guns and fire control, ammunition, and combat and motor vehicles showed small gains over the preceding month; but schedules were missed all along the line (table, page 9).

While extremely cold weather and heavy snows are no longer snagging war output, the weather is still a factor. Floods early this month disrupted the flow of materials and components to some munitions plants, interfered with de-

liveries of finished products from others. A number of nuisance strikes added to the general difficulties. Consequently, it can't be said that the job in March will be any easier than it was in February.

Yet March is only one stretch of territory along the rough and rocky road to the scheduled peak. To attain that peak, munitions production must rise more than 10% between now and the middle of the year—from about \$4,800,000,000 to somewhat over \$5,300,000,000. This would not represent the highest total ever turned out by American industry—in November, 1943, output ran to \$5,500,000,000—but it does represent a formidable task.

Fifteen months ago, munitions employment was still swinging upward; Selective Service was not dipping into the skilled 26-29 age group in war plants as it is



today; and labor shortages were not principally in basic materials—lead, iron ore, steel, etc.—hence recruitment was less difficult. For example, there's a vast difference between using a woman to replace a man in an aircraft factory or ordnance plant and putting her into a man's job in a lead smelter.

200,000 STILL NEEDED

Today, the labor supply has been stretched tauter than ever before; and getting war production up to the wanted level means it must be stretched even further. The task calls for a net addition of some 200,000 more munitions workers to swell the working force to approximately 9,300,000. Since December, munitions employment has been at a 9-, 100,000 standstill.

Another thing: Fifteen months ago, the nature of war output was different. It included many items which had become by then an old production story to workers and management: the M4 medium tank, the B-17 Flying Fortress, the A-20 Boston, the 75mm. gun, the Liberty ship, etc. If the fighting stuff wanted now ran the same pattern as before, the dollar total of war output could be sent sharply above current levels. But the pattern is not the same. Today's war production is characterized by a great

number of newer and harder-to-make items such as the T26 heavy tank, B-29 Superfortress, A-26 Invader, 155mm. gun, and Victory ship—to say nothing of large-caliber ammunition and extra-heavy trucks.

In fact, changes in the nature of war output have been so many and so varied that they have called for special attention, for extra effort. They have become known as "critical programs"—and they have been getting the cream of the nation's resources since the latter months of 1944. Obviously, they have been able to do better than munitions production as a whole.

HIGH SPOTS

Last month, for instance, output of critical items was 9% higher than in January. Indeed, excluding airborne radar and cotton duck, which were scheduled to decline in February, the monthly gain was 13%. Among major critical programs, gains ran as high as 19% for ASF artillery, 21% for aircraft, and 67% for 60mm. and 81mm. mortars. During the month, Navy high-capacity ammunition was approximately at the level of reported requirements (excluding about a month's accumulated backlog). Cotton duck climaxed three months of sharp gains and got to the point where tentage requirements are being covered; the shortage here is now limited to heavier types of duck.

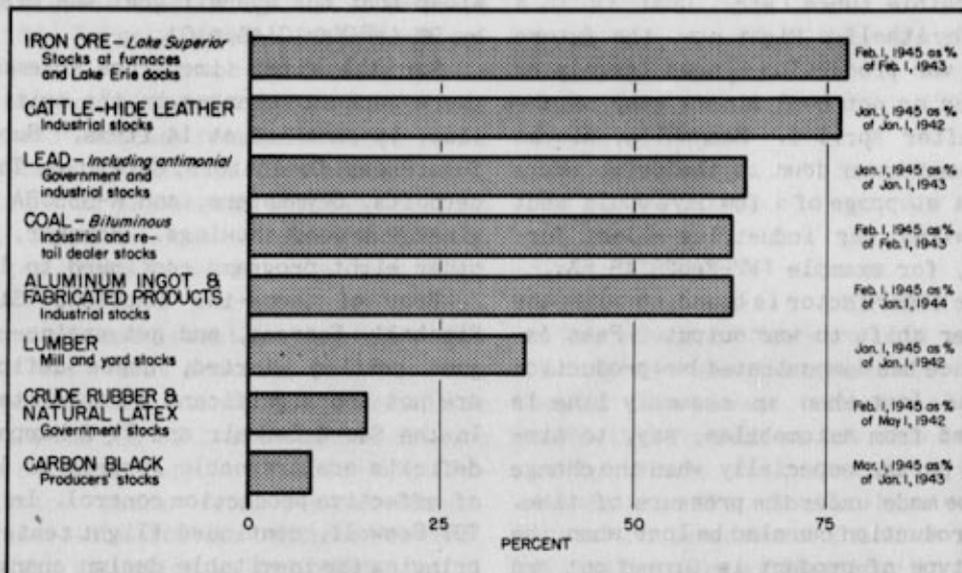
But even these gains were not enough to meet the sharply rising schedules. The overall deficit of 6% demonstrates that fact. Heavy-heavy trucks for the Army were especially disappointing, falling short of January as well as 16% below schedule. In this case, it was again a matter of defective parts and insufficient components (page 4). Other deficits from schedule ranged from 1% for airborne radar to 9% for aircraft, Navy rockets, tanks, and tires:

IN THIS ISSUE:

FEBRUARY PRODUCTION: TOO FEW DAYS	1
AIRCRAFT	4
ARMY ORDNANCE	4
NAVAL ORDNANCE	8
SIGNAL EQUIPMENT	8
NAVAL SHIPS	10
MARITIME SHIPS	10
TEXTILES	11
STEEL	12
PRODUCTION PROGRESS PRELIMINARY	9
KEY STATISTICS OF THE WEEK	11

SHRINKING STOCKPILES

Inventories of once-plentiful materials dwindle to low levels.



WAR PROGRESS

	% Above or Below	
	Jan.	Sched.
Critical aircraft.....	+21%	-9%
Critical am., ASF.....	+6	-2
Critical art., ASF.....	+19	+1
Mortars, 60mm. & 81mm..	+67	-5
Navy rockets.....	+19	-9
Navy HC am.	+6	+7
Airborne radar.....	-12	-1
Field & assault wire...	+4	-7
Tanks.....	+23	-9
Heavy-heavy trucks, ASF	-14	-16
Light-heavy trucks, ASF	+1	-3
Military dry-cell batteries.....	+1	-9
Cotton duck.....	-3	+4
Truck & bus tires.....	-1	-9
Total.....	+9%	-6%
Total excl. airborne radar & cotton duck..	+13%	-7%

To reach their stated goals, these programs must rise anywhere from modest percentages to 100%, 200%—and even more—during the months ahead. In addition

to labor shortages and the essentially more difficult nature of today's production job, these programs will be handicapped by at least two factors that have now assumed commanding importance.

For one thing, critical output—and, by the same token, war production as a whole—has been living off the fat of accumulated reserves. But there is a limit to how far this drawing down on stocks can go. In carbon black, one of the chief components in tire manufacture, the limit was reached early this month. With inventories of rubber manufacturers down to a mere 20,000,000 pounds, less than a week's supply, carbon black was the immediate cause of returning the tire industry to a six-day from a seven-day week. At the beginning of 1943, stocks of carbon black were up around 240,000,000 pounds.

Similarly in lumber, lead, iron ore, coal, etc. Although not so dramatic as carbon black in their illustration of

cause and effect, shrinking stockpiles of lumber and lead have restricted the production of containers, batteries, collapsible tubes, etc. Coal is in a class by itself. Right now, the future of all war production hinges largely on whether or not coal miners stay on the job after April 1. Meanwhile, stocks have been drawn down to the point where even a stoppage of a few days would shut down vital war industries—blast furnaces, for example (WP-Feb28'45, p3).

The other factor is bound up with the further shift to war output. Past experience has demonstrated how production can be lost when an assembly line is shifted from automobiles, say, to aircraft parts, especially when the change must be made under the pressure of time. But production can also be lost when the same type of product is turned out and the shift is merely one of diverting output from civilian to military channels. It usually takes more material and man-hours to produce the military type than the civilian type of the same item.

When a truck factory changes over from a commercial two-wheel drive vehicle to a military six-wheel drive job of comparable size—with auxiliary transmission, winch, pintle hook, more driving axles, etc.—the number of trucks it can turn out in a given period is inevitably reduced. When a cotton mill shifts from work cloth fabrics to heavy poplins and sateens for the Army, total yardage is diminished (page 11).

Aircraft

AIRCRAFT again failed to make the upturn called for by the new W-13 program, and at \$1,173,000,000 (preliminary), production was 3% short of schedule. Because February had three fewer working days than the previous month, output fell by an equal percentage below January.

In critical programs, on the other

hand, production of \$379,000,000 was sharply higher than January—up 21%. But schedules in these items are so steep that the overall goal was missed by 9% (WP-Mar10'45, p10).

For the first time since November, there were no changes in the critical list; it remained at 14 items. Superfortresses, Dominators, Catalinas, Thunderbolts, Skymasters, and R-3350BA engines made good showings. However, the other eight programs continued to lag:

Four of them—the Shooting Star, Fireball, Bearcat, and jet engine—are just getting started, hence deficits are not too significant at this stage. In the F4U-4 Corsair and PV-2 Harpoon, deficits are traceable largely to lack of effective production control. In the TBV Seawolf, continued flight tests are bringing the inevitable design changes. Finally, the A-26 Invader deficit is due to the rearrangement of assembly lines to clear the way for accelerated output.

In airplanes alone, the overall showing in February came to 71,251,000 pounds of airframe weight (excluding spare parts) and 6,286 planes. Through the first half of March, acceptances were running about 8% ahead of the like period in February. If this rate is maintained, March output should be close to schedule.

Army Ordnance

MOST of the ground army munitions "must" programs made sizable gains over January—with the notable exception of heavy-heavy trucks—but the majority of them failed to meet their rising schedules.

Production of heavy-heavies declined sharply for the second consecutive month (chart, page 7) and fell 702 below the reduced schedule; only 4,189 (Army Ordnance only) were delivered, compared to 4,918 in January, 6,185 in December. The short month, lack of components, and defective parts were factors in the decline.

Every heavy-heavy truck manufacturer except Autocar failed to meet schedule. Brockway turned out only 29 of the 6-ton 6 x 6 crane chassis against a forecast of 156, largely because of late deliveries of air compressors from Bendix Westinghouse, insufficient shipments of magneto switches from Delco-Remy, and a shortage of castings from White Motor. Failure to get enough Waukesha engines and other components caused a deficit of 143 of the 5-ton 4 x 4s at Four Wheel Drive. White's own plant again could not supply sufficient castings for cabs, with the result that 142 vehicles were not completed. Diamond T produced its quota, but 138 of its 4-ton 6 x 6s were not accepted because of defective distributor gears from Stewart-Warner. Engine-block troubles continued at Mack, but the situation is improving.

TROUBLES PAST AND PRESENT

Output of 20,613 light-heavy trucks was a slight increase over January, but nearly 400 under schedule. Virtually all of the deficit was at General Motors, where a shortage of pintle hooks from Holland Hitch again prevented acceptance of otherwise completed vehicles. Delays in steel deliveries held up Holland Hitch's subcontractors. The outlook for March is not bright: trouble is expected with pintle hooks, Gar Wood hoists and winches, and Hercules JXD engines. Also, the recent strike at Detroit Aluminum, suppliers of bearings for JXD engines, will be felt in March, as will the five-day strike at Jackson Crankshaft.

Tank production was on the upgrade again after a sharp drop in January, due to the change-over from narrow- to wide-gauge tracks. February deliveries totaled 1,933, as against 1,593, but were 171 short of forecast (chart, page 7). Although all major groups failed to meet schedule, the most serious deficiencies were in the medium M4 mounting the 76mm.

gun and the T26 heavy tank (General Pershing). Here's how output in units compared with January and schedule:

	Feb.		
Tanks	Feb.	Jan.	Sched.
Heavy:			
T26 (90mm. gun)..	132	70	160
Medium:			
M4 (105mm. gun)..	341	325	350
M4 (76mm. gun)...	787	657	916
M4 (75mm. gun)...	218	216	218
Light:			
M24 (75mm. gun)..	455	325	460

Deliveries of M4s were held up by a shortage of suspension parts from F. L. Jacobs. Heavy-tank output was nearly double that for January but missed schedule by 28, due to insufficient turret deliveries. The trouble here traces back to the foundries. The March schedule calls for a 55% stepup in heavy tanks, and the recent strike at Chrysler will cut into production.

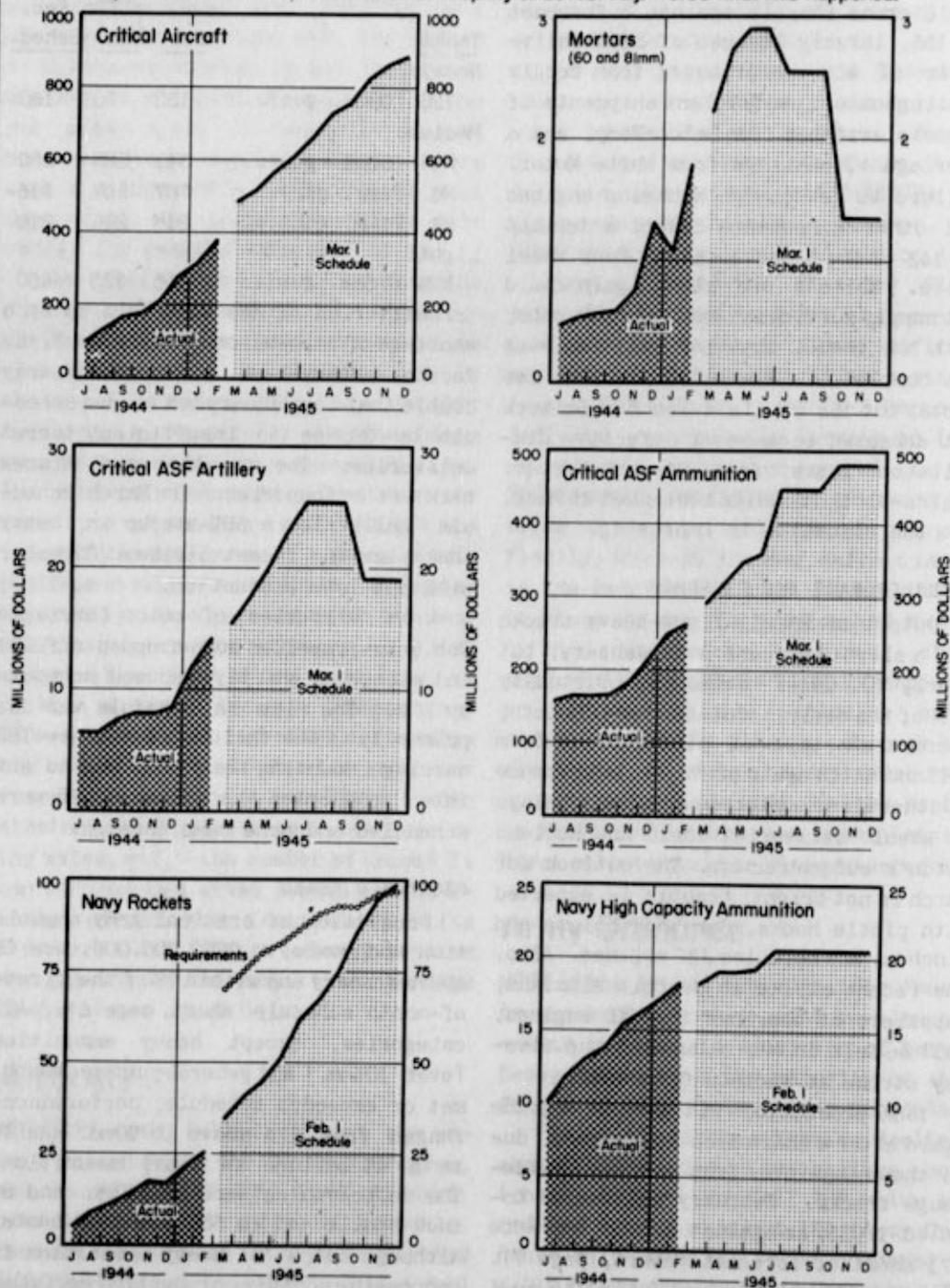
Unit deliveries of motor carriages for self-propelled guns dropped off 90% and missed a sharply reduced schedule by 30%. The miss in schedule was due primarily to the failure of the new T83 carriage mounting the 155mm. gun to get into production as planned; 25 were scheduled and none came through.

POSTPONED PEAKS

Production of critical Army ammunition and bombs, at \$262,000,000, was 6% above January and within 1% of the first-of-month schedule (chart, page 6). All categories, except heavy ammunition (over 105mm.) and general-purpose bombs, met or exceeded schedule; performances ranged from 17% above in 90mm. shells to a 4% failure in heavy ammunition. The deficiencies were in 240mm. and 8-inch shells and in 500-pound GP bombs. Although output of heavy ammunition is increasing monthly, production has fallen short of the objectives set in October because of a lack of machine tools. The

PRODUCTION PROGRESS ON CRITICAL PROGRAMS—

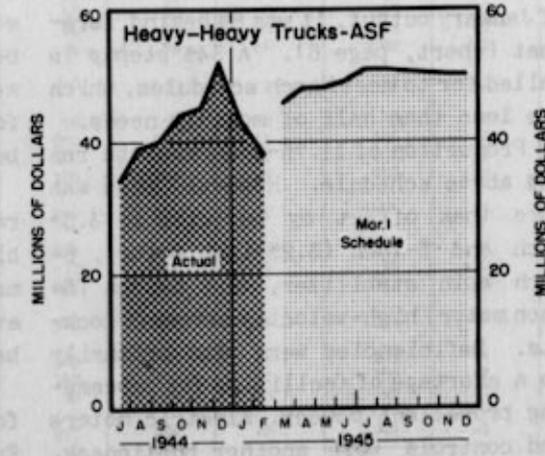
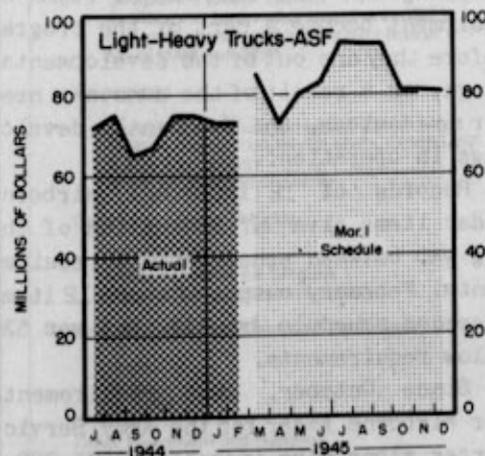
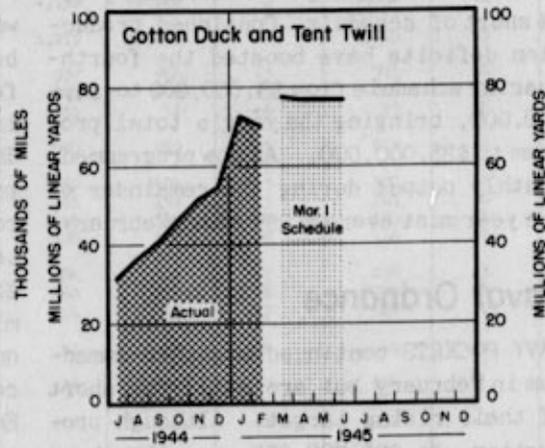
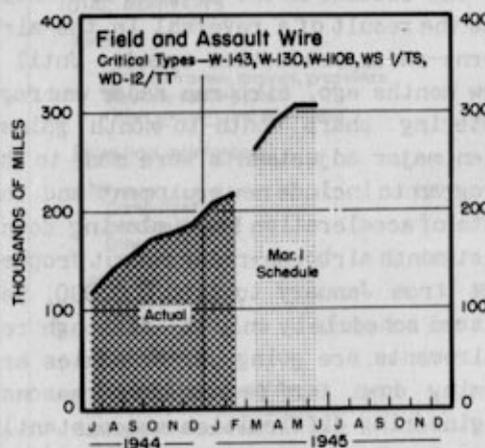
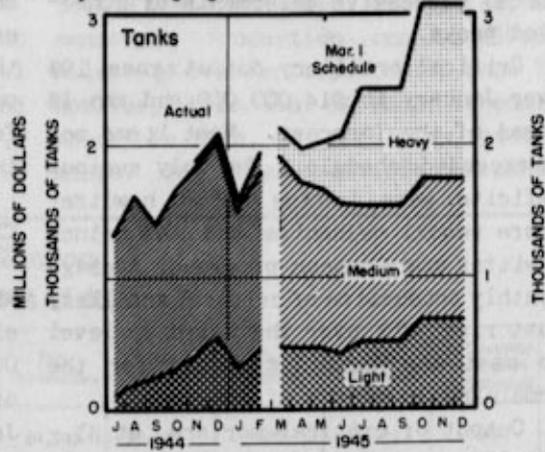
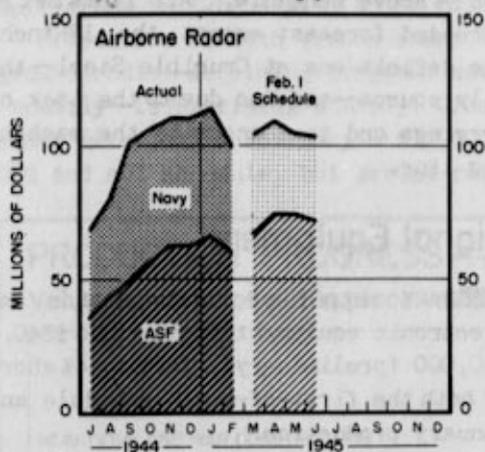
Output of selected critical items has risen rapidly since last July. Here's what has happened.



WAR PROGRESS

-PAST PERFORMANCE VS. THE FUTURE

But there's still a big job ahead to meet this year's high goals.



WAR PROGRESS

failure of deliveries to come in as scheduled is resulting in delays in installing machine tools, and this has forced successive deferments of scheduled peaks.

Critical artillery output rose 19% over January to \$14,000,000 and ran 1% ahead of the forecast. Most items met or exceeded schedule. The only serious deficits were in the 105mm. howitzer spare recoil mechanism and the 8-inch howitzer spare cannon programs. Average monthly production of critical artillery must rise 47% over the February level to meet the March 1 schedule for the remaining 10 months of the year.

Output of critical mortars, at \$1,800,000, was 67% higher than January but 5% short of schedule. Continued production deficits have boosted the fourth-quarter schedule from \$3,000,000 to \$4,000,000, bringing the year's total program to \$25,000,000. As now programmed, monthly output during the remainder of the year must average 25% above February.

Naval Ordnance

NAVY ROCKETS continued to gather momentum in February but are still far short of their rising target. Although production, at \$25,700,000, was 19% ahead of January output, it was 8% behind forecast (chart, page 6). A 34% stepup is called for to meet March schedules, which are less than half of monthly needs.

Production of 11.75-inch rockets ran 50% above schedule. However, this was more than offset by deficits in 3.5-inch and 5-inch (3.25-inch motor), 5-inch spin stabilizer, and 5-inch (5-inch motor) high-velocity aircraft rockets. Deficiencies were due primarily to a shortage of facilities for processing propellant powder. Electric motors and controls were another bottleneck. Insufficient deliveries of metal parts also retarded loadings.

Output of Navy high-capacity bombardment ammunition amounted to \$17,900,000. This was 4% ahead of January deliveries and 5% above schedule. All items met or exceeded forecast except the 12-inch; the deficit was at Crucible Steel—the only source—and was due to the lack of forgings and to changes in the machining line.

Signal Equipment

FEBRUARY output of communication and electronic equipment declined to \$340,000,000 (preliminary), falling 4% short of both the first-of-month schedule and January production.

The decline in the program as a whole was the result of a reversal in the airborne-radar production trend. Until a few months ago, airborne radar was registering sharp month-to-month gains. Then major adjustments were made in the program to include new equipment and the rate of acceleration began slowing down. Last month airborne-radar output dropped 12% from January to \$100,000,000, yet missed schedule by only 1%—although requirements are going up, schedules are coming down for feasibility reasons. Engineering difficulties are constantly cropping up, and many major items of equipment become a part of the program before they are out of the developmental stage, as a result of the constant need for new devices, and frequently develop bugs in operation.

Records of 12 important airborne radar items give an indication of the big gap between schedules and requirements. February output of these 12 items exceeded schedule by 11%, but was 53% below requirements.

Since October, 1945 requirements for airborne radar for the Army Service Forces alone have increased \$275,000,000 to \$900,000,000—more than double 1944 deliveries. This means that ASF

production must average \$77,000,000 for the 10 remaining months of the year. This is \$17,000,000, or 28%, more than deliveries in February.

Production of both ground radar and ground radio—declining programs until recently—is now rising sharply. Ground radar was up 20% in February to \$12,000,000 and met schedule, but ground radio

—up 16% to \$50,000,000—fell 4% short. Field and assault wire output continued to rise despite shortages of cotton braid, stranding facilities, and manpower. Production ran to 217,500 miles—4% over January (chart, page 7). However, this was 6% under schedule, which, in turn, is far below requirements. The biggest deficit from sched-

PRODUCTION PROGRESS—Preliminary

Value delivered or put in place—millions of dollars

	Feb. Preliminary	Jan. Actual	% Change	Feb. Schedule*	% Deviation Feb. Prelim. vs. Schedule
MUNITIONS AND WAR CONSTRUCTION	\$4,913	\$5,019	-2%	\$5,051	-2%
TOTAL MUNITIONS	4,736	4,829	-2	4,854	-2
Aircraft	1,173	1,208	-3	1,215	-3
Total airframes, engines, propellers	937	968	-3	971	-4
Airplane spare parts	203	209	-3	209	-3
Other aircraft and equipment	33	31	+6	35	-6
Ships (incl. maintenance)	870	919	-5	877	-1
Navy	382	403	-5	397	-4
Combatant	161	156	+3	161	0
Landing vessels	115	135	-15	120	-4
Other	106	112	-5	116	-9
Maritime	284	305	-7	276	+3
Cargo and supply	260	276	-6	252	+3
Other	24	29	-17	24	0
Army Vessels	40	61	-34	40	0
Ship Maintenance and Repair	164	150	+9	164	†
Guns and Fire Control	256	254	+1	259	-1
Small arms (under 20mm.)	53	55	-4	54	-2
Artillery, mortars, rocket launchers—ASF	65	65	0	65	0
Fire control and searchlights (excl. Radar)	44	45	-2	48	-8
Naval guns and other	94	89	+6	92	+2
Ammunition	658	650	+1	681	-3
Small arms ammunition (under 20mm.)	54	50	+8	58	-7
Artillery ammunition, mortar shells, rockets—ASF	250	243	+3	246	+2
Aerial bombs—ASF	166	155	+7	171	-3
Naval ammunition and other	188	202	-7	206	-9
Combat and Motor Vehicles	462	451	+2	484	-5
Combat vehicles	184	162	+14	195	-6
Motor carriages for SP guns	7	17	-59	10	-30
Automotive vehicles and tractors	267	268	+1	275	-3
Communication and Electronic Equipment	340	355	-4	354	-4
Radio	103	99	+4	107	-4
Radar	147	159	-8	150	-2
All other	90	95	-5	97	-7
Other Equipment and Supplies	977	994	-2	984	-1
WAR CONSTRUCTION (GOV'T. FINANCED)	177	190	-7	177	†

* As of February 1.

† Schedule used for preliminary.

ule—16%—was in assault wire (W-130).

Labor recruiting for the wire program is bringing results: only 1,000 additional employees are needed in March, as compared to 1,600 in February.

Naval Ships

NEARLY 200,000 displacement tons (preliminary) of ships joined the Navy in February, but this total was 7% below January and 12% behind the first-of-month forecast. None of the major groups met schedule, but combatants and district craft exceeded January:

	% Above or Below		
	Feb. (disp. tons)	Jan.	Sched.
Combatants....	72,000	+16%	-4%
Landing craft.	82,000	-21	-9
Patrol & mine..	5,000	0	-38
District craft	16,000	+23	-38
Aux. & other..	23,000	-21	-12
Total.....	198,000	-7%	-12%

In combatants, the entire deficit was in two submarines. Otherwise every type came through as planned. Deliveries included the heavy cruisers "St. Paul" and "Chicago," the 12,000-ton carrier escort "Gilbert Islands," one light cruiser, eight destroyers, one destroyer escort, and two submarines.

Most types of landing vessels missed the declining schedule, but nearly half of the deficit was in landing ships medium (LSM), a program which is scheduled for completion in August. Brown Shipbuilding Company, Houston, Tex., missed their LSM schedule because they started working on the first of their 24 landing ships (rocket), LSM (R), to which the Navy is giving top priority.

Maritime Ships

DELIVERY of 121 ships by the Maritime Commission was 4% above January, and 6% behind the first-of-month forecast. In

terms of value, however, deliveries were 2% below January and 3% behind forecast.

The deficit from schedule was due mainly to nondelivery of three Liberty ships. Against a schedule of 33 ships, 30 were delivered as compared with 32 in January. Bad weather was the chief factor in the behind-schedule showing. From here on, schedules drop sharply and only 23 are due for delivery in March.

Victory ships again hit a new high, with 36 delivered against a schedule of 35 and January production of 33. The peak—39 ships—is scheduled for March. After that, production will remain relatively stable for six months, then decline sharply. The Victory ship is now the largest single item in Maritime production—accounting for 27% of total value of deliveries last month.

ON THE NOSE

Delivery of four AKAs and eight APAs came through exactly as forecast, three AKAs and one APA below the January total. Delivery of AKAs will continue at current levels until July, then virtually drop out of Maritime schedules. In the case of APAs, however, the program calls for no deliveries during May, June, and July, after which 12 ships, put into the program in January, are scheduled for the last five months.

Standard tanker deliveries of 20 matched the forecast, one above January. The program calls for a gradual decline throughout the year.

Here's the February record:

	Feb. Deliv.	Feb. Forecast	Jan. Deliv.
Victory.....	36	35	33
Liberty.....	30	33	32
Standard cargo..	9	10	5
Standard tanker.	20	20	19
APA.....	8	8	9
AKA.....	4	4	7
All other.....	19	24	16
Total	125	134	121

Except for a slight increase in overall schedules in May and June, the Maritime program goes down throughout 1945, gradually until June, more sharply thereafter. As now scheduled, the value of deliveries in the second half is 26% below the first half.

Textiles

BECAUSE of heavy increases in military requirements, combed goods now represent one of the most critical spots in textiles. Greater demand for field jackets, trousers, water-repellent cases for sleeping bags, etc. represents only one part of the story. The combed saateens, oxfords, and poplins used in these articles are of much heavier weights than the fabrics they displace, and every yard added to the military program costs about three yards of civilian fabrics.

To meet the increased military allotments for combed goods in the coming quarter, a large number of looms and spindles must be converted. But because the mills were not engineered to make military fabrics, facilities will be unbalanced. In addition, the time required for the change-over means an absolute loss of production. All told, the conversion will cut output by some 12%—from 304,000,000 yards to 267,000,000 yards—with nonmilitary claimants bearing the brunt.

While combed goods normally go to higher-priced clothing items and specialties, they are now being used for many of the most essential garments and household textile items, because of the severe curtailment of carded fabric production.

The recent pattern in wool fabrics—another critical area—is much the same as that in cotton: military demands have

KEY STATISTICS OF THE WEEK

	Latest Week	Previous Week	Month Ago	Same Week			
				1944	1943	1942	1941
War Program - checks paid (millions of dollars).....	1,914	1,805	1,794	1,878	1,374	646	184
War bond sales - E, F, G (millions of dollars).....	186	198	175	161	185	117	-
Money in circulation (millions of dollars).....	25,890 ^P	25,881 ^P	25,652	20,934	16,065	11,462	8,826
Wholesale prices (1926=100)							
All commodities.....	105.1 ^P	105.1	105.0	105.6	105.0	96.2	80.5
Farm products.....	127.4 ^P	127.1	127.2	124.5	122.4	100.7	70.5
Foods.....	104.6	104.5	104.8	104.6	107.1	94.0	73.3
All other.....	99.4 ^P	99.4	99.3	98.2	96.6	94.9	84.6
Petroleum (000 barrels)							
Total U. S. stocks [*]	393,763	396,743	404,325	414,225	439,393	497,369 ^P	501,542 ^E
Total East Coast stocks [*]	56,348	56,173	58,979	54,751	43,668	62,284	76,811
East Coast receipts ^{**}	2,043	1,966	1,860	1,654	1,191	N.A.	N.A.
Bituminous coal production (000 short tons) ^{**}	1,838	1,892	1,893	2,019	2,043	1,719	1,825
Steel operations (% of capacity).....	96.9%	94.5%	91.4%	99.1%	99.3%	97.9%	99.4%
Freight cars unloaded for export, excluding grain ^{**}							
Atlantic Coast ports.....	3,652	3,502	3,439	3,091	1,637	1,708	1,206
Gulf Coast ports.....	540	431	431	388	393	450	312
Pacific Coast ports.....	2,217	2,168 ^P	2,121	1,462	960	297	141
Department store sales (1935-39=100) [†]	212 ^P	204	176	160	144	137	110

^P Preliminary ^R Revised * Excludes military-owned stocks ^E Estimated ** Daily average N.A. Not available [†] Unadjusted

rocketed and manufacturing operations must be rescheduled to output of heavier cloth, thus reducing the total yardage of goods produced. Whereas fourth-quarter 1944 production ran to 128,000,000 yards, output in the coming quarter is expected to total 110,000,000 yards, or 15% less. Second-quarter requirements, at 178,000,000 yards, are more than half again as large as expected supply.

The industry has enough raw materials and facilities. Additional total output can be obtained only by a more complete utilization of combs. The solution is largely in the manpower field—recruitment, wages, conditions of work, etc.

The Textile Bureau has already initiated action to institute a 48-hour week in the wool-fabric industry. In the meantime, the Army Service Forces and the Production Urgency Committees are cooperating to get around 500 or 600 more woolen-mill workers (a third of whom can be women).

Steel

STEEL ingot production has moved up in the past month, but finished steel output and shipments have not kept pace with the ingot supply and steel remains critical.

An emergency task committee has been tackling the problem step by step. Although longer working hours have partially offset the 13% drop in employment since mid-1941 (from 550,000 to 475,000), lack of manpower continues to be the most important limiting factor. The committee is working with the War Manpower Commission in an attempt to increase the work-week further for a temporary period.

A special survey by the WMC reveals that a minimum of 15,000 workers is currently needed in 124 steel plants

alone. In addition, a large number are required for coke plants, ore mines, refractories, scrap collection and processing, etc. The WMC's aim is to prevent steel facilities from working at less than capacity for lack of labor. But this involves moving workers, and one of the main problems here is the shortage of housing.

CARBON STEEL

Aside from manpower, the steel industry's most serious problem is insufficient capacity to meet rising demands for quality carbon steel for shell billets, seamless bomb pipe, and oil-country tubular goods. Even with the new hot-topping capacity to come in, it appears impossible to meet third-quarter demands. Alloy facilities have been shifted over to carbon steel production, creating a shortage of alloy steel products for the first time in many months. A similar, though less acute, shortage threatens other carbon steel shapes, notably sheets and strip.

During the past two weeks, WPF has taken several steps to clear mill space for the most urgent tonnage. These include: (1) calling on customers to cancel immediately all orders for second and subsequent quarters, if their reduced allotment authority is insufficient to cover them; (2) instructing mills to hold open sheet space created by cutbacks and cancellations for orders to be placed from Washington; and (3) tightening the rules governing issuance of special directives to insure that they are used to take care of emergency situations, not to obtain preferential status for advance orders.

Although such actions should result in more equitable distribution in mill space, real relief can come only from a substantial increase in supply.

War Progress is loaned to you for official use. It contains CONFIDENTIAL information affecting the security of the United States. Revelation of its contents in any manner to unauthorized persons is prohibited by the Espionage Act.

OFFICIAL RULES for its CUSTODY

- (1) Not to permit information from any copy in their custody to become available to anyone except a Government employee under their immediate supervision who will be bound by the restrictions hereby agreed to and who requires access to WAR PROGRESS in connection with his official duties.
- (2) To keep all copies in a securely locked container when not actually in use.
- (3) Not to incorporate information from WAR PROGRESS in any record unless the use of such record is restricted as if the record were itself a copy of WAR PROGRESS.
- (4) To give prior written notice of any change of address.
- (5) On written request, or before separation from the Government position which entitles them to receive WAR PROGRESS, to return all copies charged to their account.

WAR PROGRESS

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 3(D) or (G)
Commiss. Dept. of State, 11-16-72
By RHP, Date: MAR 14 1973

Economic Data
Special Articles

WAR PROGRESS

L. F.
War Production
Board

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 2(E) and 6(D) or (G)
Commerce Dept. Letter, 11-15-72
By RHP, Bate

MAR 14 1973

The "Irreplaceable" Man

x 4735

Number 237

March 31, 1945

R
COURIER SERVICE CONTROL RECORDFROM:
STATISTICS DIVISION
(DIVISION OR OFFICE)

RCS

(NAME)

(ROOM NUMBER)

BUILDING

TO:
The President

(DIVISION OR OFFICE)

(NAME)

The White House

(ROOM NUMBER)

(BUILDING)

DESCRIPTION OF DOCUMENT:

WP 257

#1

3

COPY 3
Addressee's CopyTHE SERIAL NUMBER IN THE UPPER RIGHT-HAND CORNER
SHOULD BE IDENTICAL TO NUMBER ON SENDER'S RECEIPT

GPO 16-5757-8

WAR PROGRESS

Prepared in the War Production Board
Bureau of Program and Statistics

War Progress is a confidential report designed to provide a coordinated and continuing picture of the overall war program for the various war agencies. To this end, it presents, analyzes, and interprets basic statistical and economic information, and from time to time examines the pros and cons of controversial

War Progress is an official publication of the War Production Board, statements in it are not to be construed as expressing official attitudes of the Board as a whole, or even of individual members. Conclusions, whenever reached, should be considered editorial conclusions.

War Progress is prepared by the War Progress Staff: David Novick (acting director), Winona Hibbard (managing editor), James J. Cullinane, Thomas A. Falco, Roy T. Frye, (drafting), A. R. Hilliard, Morris Katz, Chester L. Kieffer, Martha Menaker, J. S. Werking (production).

This report contains CONFIDENTIAL information affecting the defense of the United States. See inside back cover for rules of custody.

Certifying the "Irreplaceable" Man

As draft boards review deferments of men 26 to 29 in industry, war agencies must pick only three out of 10 key workers to provide "hard core" of skills, experience.

NEXT WEEK draft boards throughout the country must begin a wholesale review of the deferments of men under 30 in essential war industry. And 16 war agencies are working under pressure, as they have for the past month, to select and "certify" for continued deferment the three men out of 10 whose loss would hurt the home-front war effort the most.

The armed forces continue to call for physically fit young men faster than they come of age. The difference must be made up by taking deferred workers, because there is no reserve of 1As in this age group (chart, page 3). And because the law forbids the drafting of men, regardless of age, who are "necessary" to agriculture, Selective Service must look chiefly to industry, where the deferred men must be taken—necessary or not.

TWO FOR ONE

Another feature of our manpower control system adds to the difficulty. While the armed forces may be able to get along with 225,000 men from this source between now and June (minimum estimate), Selective Service will have to call up twice that many to get them, because only one man in two passes the physical. The other gets, in most cases, the official 4F classification, and joins the group—now by far the largest of all deferred groups—over which our manpower system up to now has had no effective control.

A year ago, Selective Service thoroughly combed out the 18-25 age group. Now most of the needed men must come from the 800,000 between 26 and 29 who constitute 15% of the labor force of war industry. Many of them have had, by this time, several years of experience on their war jobs. Two out of three of them have the 2B classification, which means that their draft boards have previously judged them "irreplaceable" in essential industry—not simply "engaged" in essential industry (2A). Not only does the group include men doing arduous work in heavy industry—miners, long-shoremen, steelworkers; but also a good proportion of skilled workers, scientists, engineers, leadermen, supervisors, and younger superintendents and executives. Quick-growing war industries make use of young men—training them rapidly, promoting them rapidly. A survey of urgent plants supplying the Army Air Forces, for example, shows that 20,000 out of 70,000 employees under 30 are supervisory personnel. In many plants the proportion is far higher. Almost the entire engineering staff working at Ryan Aeronautical Company on the Fireball, the Navy's new jet-engined fighter, is made up of men under 30. More than half of the men under 30 in the synthetic rubber industry are engineers, technicians, and chemists.

TUG OF WAR

And yet at a time when the war economy is being strained to the limit of its capacity to meet urgent battle-front needs, when many critical programs are lagging for lack of manpower and many kinds of skills and training are unob-

tainable anywhere, some 500,000 out of this 800,000 will receive postcards from their draft boards between now and June.

Careful choice of the remaining 300,000—the minority who will remain undisturbed on the job—thus becomes an urgent necessity.

THE "HARD CORE"

To assist local draft boards in making this choice, the Director of War Mobilization took action in January to provide for selection in advance for continued deferment of the greatest possible number of key workers, who would provide a vital "hard core" of experience and skill, both in war industry and in the services providing for public health and safety. He appointed a committee of the agencies most immediately concerned: Selective Service, Army, Navy, War Manpower Commission, and the War Production Board. They agreed that 30% of the 800,000 should be certified to Selective Service for continued deferment, and that local draft boards should give serious consideration to these recommendations. (Recent revisions of the plan grant a greater percentage of deferments in a few basic industries, together with certain concessions to smaller employers.)

But the method of choosing the three

men out of 10 was not so easily determined as the broad objective. Many considerations are involved in such a choice, and many conflicting points of view. Any given employer can select the men on his payroll who are most valuable to him, on the basis of their abilities and personal characteristics. But a somewhat broader outlook is required to decide whether the men he has chosen are genuinely irreplaceable within the particular locality, and whether the employer himself rates—on the basis of the product he is making, the difficulty of his schedule, and the efficiency of his operation—more or less than the average percentage of deferments. And a nationwide viewpoint is required to bring to bear such considerations as the relative scarcity of different kinds of manpower in different regions and the relative importance of different products and services in the light of future requirements.

ALL ANGLES

Because of the small number of deferment requests allowable, each certification that is presented to Selective Service must be reviewed from all these points of view. A high official in a plant with a falling schedule may be less important to the war effort than a maintenance man in a plant that is being called upon for increased output. A tool and die maker may be irreplaceable in one region but outranked by workers with other skills in another. Workers in efficient plants must receive greater consideration than those in plants that have been wasting manpower. Thus, for a variety of reasons, one plant might be granted a good proportion of its requested deferments while the plant next door received none at all.

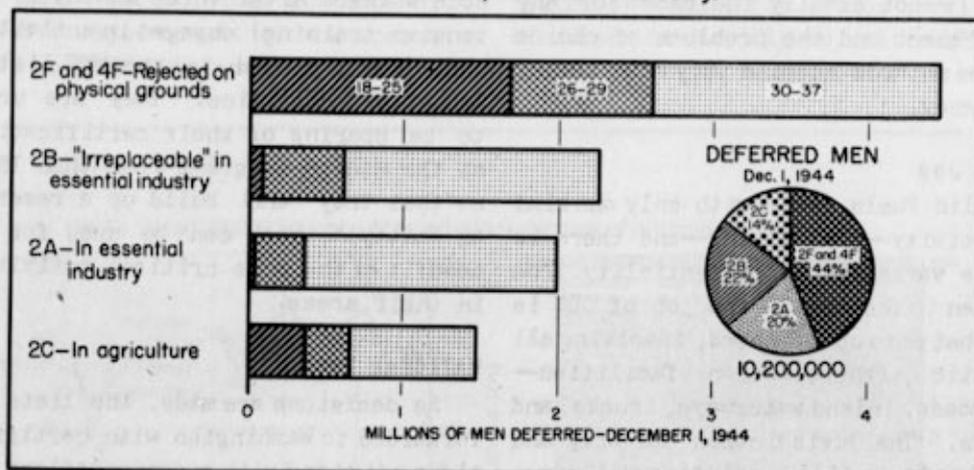
Besides the difficulty of devising a method for making these complicated

IN THIS ISSUE:

CERTIFYING THE "IRREPLACEABLE" MAN	1
THE EVE OF APRIL 1	5
PHTHALIC NEEDS OUTPACE SUPPLY	7
KEY STATISTICS OF THE WEEK	9
SPARK OF LIFE FOR RADIO AND RADAR	10

ABC OF DEFERMENTS

As of last December, 44% of all men with deferments were physically unfit. Agricultural deferments of men 18 to 25 more than triple those in industry.



WAR PROGRESS

choices, the committee was faced with an urgent need for speed. Local draft boards, with their quotas to fill, were already calling up men with occupational deferments. The system had to be simple and quick to operate.

INDISPENSABLES

As they worked it out, employers throughout the nation supply the basic information: lists of all their employees under 30 years of age who were classified 2A or 2B on January 1. In the same operation each employer indicates his own preferences, listing the men in the order of their value to his plant, with the man he would most dislike to lose at the top. For every man considered indispensable to the plant the employer supplies a form officially requesting continued deferment.

The lists are submitted to the government agencies responsible for the procurement and production of war goods and the maintenance of essential services, each employer sending his information to

the agency most closely associated with his own activity. There are 16 of these agencies:

- Army Service Forces
- Navy Department
- Army Air Forces
- War Production Board
- Maritime Commission
- Petroleum Administration for War
- Office of Defense Transportation
- War Food Administration
- Coordinator of Fisheries
- Rubber Reserve
- Solid Fuels Administration for War
- Review Committee on Deferment of Government Employees
- National Roster of Scientific and Specialized Personnel
- Office of Scientific Research and Development
- Procurement and Assignment Service
- Manhattan District Project

It is then the privilege of each agency to "certify" for continued deferment up to 30% (more for a few of

CONFIDENTIAL

them) of the aggregate number of workers on the lists submitted to it, giving consideration to both the local and the national aspects of their problem. This task is not exactly the same for any two of them; and the problems of choice and the methods adopted vary from agency to agency.

WPB'S JOB

Solid Fuels deals with only one kind of activity—coal mining—and there is little variation in essentiality from one man to the next. The job of ODT is somewhat more complicated, involving all domestic transportation facilities—railroads, inland waterways, trucks, and busses. The jurisdiction of Army and Navy is wider still, including all manufacturers of munitions whose main output comes under their procurement authority. But by far the most complicated of the lot is the job of WPB, the agency made responsible for most of the basic producing industries (metals, lumber, paper, textiles, chemicals, etc.); for public utilities; for job shops, machine shops, and producers of components, B products, transportation equipment, and a great variety of items for general use by the other agencies.

MANPOWER "KITTY"

The system adopted by WPB's Committee on Certification of Deferment Requests divides up the 30% of available deferments, issuing part on a local and part on a national basis; and in this respect it is very similar to the systems adopted by the Army, the Navy, and the air forces. Local district managers—close to a hundred of them throughout the country—are the designated certifying officers. They may certify for deferment on their own authority 15% of the total number of workers on all the lists submitted to them. For certification in excess

of 15%, authority must come from Washington. They may give consideration only to irreplaceable men (whose work could not be performed by other available workers after three months of intensive training) engaged in activities that are included in the WMC List of Essential Activities. They are urged to be sparing of their certifications at the start—to grant less than 15%—so that they will build up a reserve, or "kitty," which can be used for the benefit of the more critical activities in their areas.

NATIONAL POOL

As decisions are made, the lists are forwarded to Washington with certifications noted and with recommendations for additional certifications to be made from the WPB national pool. This pool—the remaining 15% of WPB's certification authority—is held by WPB's Committee on Certification of Deferment Requests for allocation on a national basis to highly critical activities (restricted to those on the Production Urgency List). A Detroit aluminum company, for instance, has requested 43 deferments, but the local certifying officer, keeping within his 15% limit, has granted only six. Company officials state that these men are supervisory personnel and that without at least 22 of them a contemplated plant expansion will not be practicable. And the purpose of the expansion was to provide urgently needed bearings for aircraft engines.

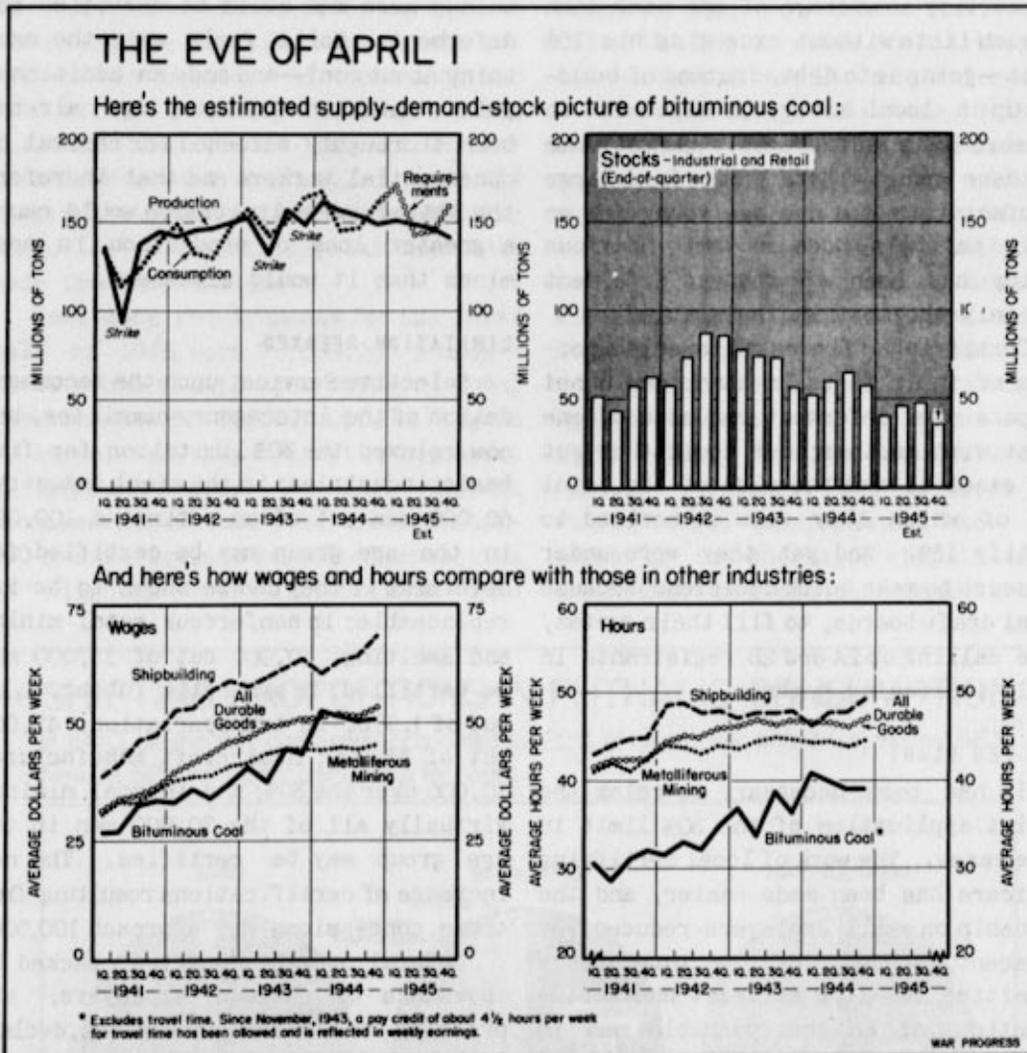
HOW URGENT IS IT?

Before the national pool is distributed, hundreds of such cases must be compared with one another and full consideration given to the relative urgency of programs and to the production stepup required to meet various schedules within the coming months. One-third of the

national pool—5% of total certification authority—will be held in reserve for additional certification in the most urgent production, for war workers in foreign lands, and for other contingencies.

First major result of the operation of the certified deferment system was to

bring home to all concerned—employers and government agencies alike—the serious consequences of the new manpower drain. Most employers requested continued deferment for all or nearly all of the men on their lists, although they could get only three out of 10 on the



A prolonged strike in bituminous mines would throw the supply-demand situation completely out of gear. (In 1943, strikes cost some 35,000,000 tons.) Even without a strike and with an early end to the war in Europe, next winter's requirements could not be met. After V-E Day, production will increase somewhat

over present estimates, requirements decrease slightly—but not enough. Estimated production for 1945 is 585,000,000 tons, requirements (including export) 620,000,000. Because of the short supply, restrictions will bring actual consumption closer to 600,000,000. Currently, stocks are at the lowest point of the war.

average, and officials could locally certify only half that many. Agencies with jurisdiction over a wide variety of small manufacturers received great numbers of very short lists; 4,000 out of the first 5,000 received by WPB, for instance, contained fewer than seven names each. A local certifying officer could not certify an average of one name each on such lists without exceeding his 15% limit—going into debt, instead of building up a local kitty for allotment to the more important plants. And yet some of these short lists were from large manufacturers who had few young men on their payrolls because their previous policy had been to request deferment for only the most indispensable.

Certifying officers, with only a portion of their lists in hand, could not compare the deferment requests of one plant with another; nor could they get any exact idea of the size of the total out of which they were authorized to certify 15%. And yet they were under pressure to make quick decisions because local draft boards, to fill their quotas, were calling up 2A and 2B registrants in daily increasing numbers.

ONE PER PLANT

It has been necessary to relax the strict application of the 30% limit in some cases. The work of local certifying officers has been made easier, and the hardship on small employers reduced, by a recent decision of the interagency committee to allow at least one certification of an indispensable man in every essential establishment.

Other concessions have been necessitated by the special problems of certifying agencies that have jurisdiction only over single industries. Such an agency had little opportunity of balancing one program against another or one skill against another; there was only

one program, and relatively few skills were involved. A loss of irreplaceable workers meant a straight loss of production. The Rubber Reserve Corporation measured the prospective loss of synthetic rubber output at 30%. WPB's Steel Division declared that the nation's steel requirements could not possibly be met unless more men could be certified for deferment. Solid Fuels said the same thing about coal—and made an additional point: that the industry had already been thoroughly screened for removal of nonessential workers and that therefore the 30% deferment limitation would cause a greater loss of production in coal mines than it would elsewhere.

LIMITATION RELAXED

Selective Service, upon the recommendation of the interagency committee, has now relaxed the 30% limitation for five basic industries: in the steel industry, 60,000 men out of an estimated 100,000 in the age group may be certified for deferment if they can be shown to be irreplaceable; in nonferrous metal mining and smelting, 10,000 out of 15,000 may be certified; in synthetic rubber, 1,100 out of 1,970; in transportation, 47,000 out of 55,000; in aircraft manufacture, 10,000 over the 30%; and in coal mining, virtually all of the 30,000 men in the age group may be certified. The net increase of certifications resulting from these concessions may approach 100,000.

Several other industries, backed by thousands of anxious employers, are pressing for similar concessions, declaring that schedules cannot be met unless more of these young men are kept on the production lines. But men are also needed on the battle lines, and it does not appear that the arithmetic of the situation can be stretched any further. Certification authority has now probably reached its limit.

Phthalic Needs Outpace Supply

Insectifuge, paint, smokeless powder, other war uses will take most of short supply of acid. And new capacity will be insufficient to meet military demand.

AS one malarial island after another is taken in the Pacific, more insect repellent is needed. As more munitions roll off the assembly line, more paint for tanks and planes, more binder for smokeless powder are called for. All this spells increased demand for phthalic anhydride—a white, crystalline acid made from naphthalene.

Last June requirements for the first half of 1945 were 70,000,000 pounds—about equal to estimated supply. Today requirements are 105,000,000, half again as large, and they are apt to increase, if anything, after V-E Day. Current requirements for the year are 210,000,000 pounds, against estimated production of slightly over 150,000,000. This

compares with 125,000,000 produced last year and is more than triple the 1939 output (chart, page 8).

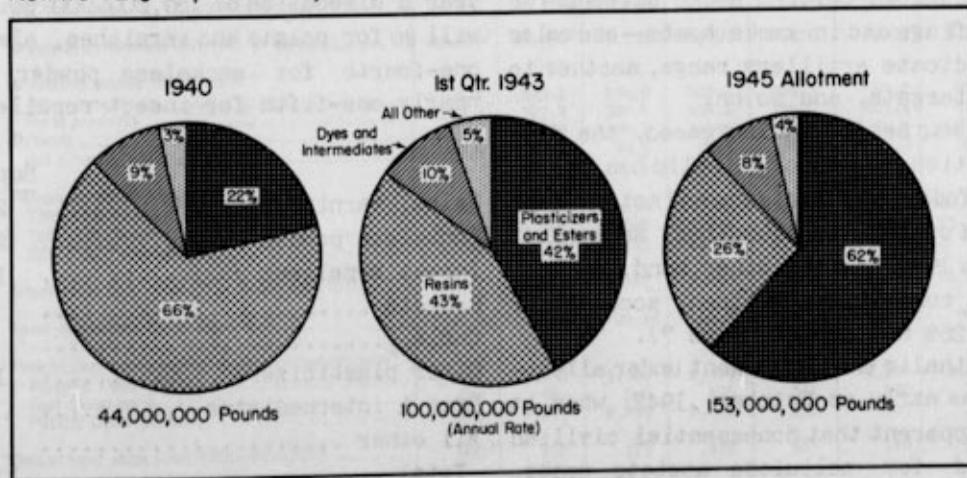
Relatively small amounts of phthalic anhydride are needed for food preservatives, drugs, petroleum, and rubber. All of the big increase in military requirements has been in three major uses:

1. Plasticizers and esters, including phthalic used in dibutyl phthalate for smokeless powder (it holds the explosive materials together and makes burning more uniform) and dimethyl phthalate, an insectifuge effective against all insects, particularly chiggers and malaria-spreading mosquitoes. Other uses are for cable insulation, raincoats, and protective covers for equipment.

2. Resins for the manufacture of paints, varnishes, and lacquers for ships, tanks, guns, planes, etc. (Because of the shortage, ship interiors are not getting phthalic resins.)

SHIFTING PROPORTIONS IN PHTHALIC CONSUMPTION

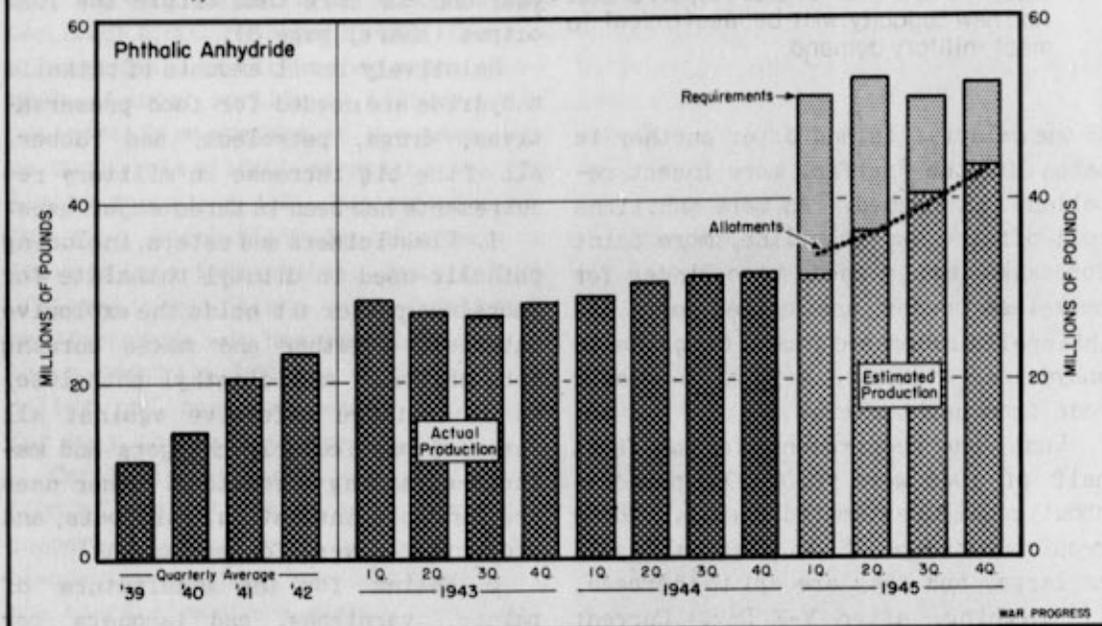
In 1940, plasticizers and esters accounted for 22% of all phthalic anhydride; resins, 66%. Now it's 62% for plasticizers, 26% for resins.



WAR PROGRESS

THE LEAD AND THE LAG IN PHTHALIC

Though this year's production will be 22% ahead of last year's (mainly due to new facilities), it will still be 27% short of requirements.



3. Dye and dye intermediates for wool clothing and life preservers. When phthalic dye is used in life jackets, it reacts with the water and makes a bright yellow liquid which stays visible on the surface for two or three days, thus aiding in rescue work. Dyes are also used in colored smoke screens for camouflage and in smoke bombs—one color to indicate artillery range, another to mark targets, and so on.

As war needs have increased, the distribution pattern of phthalic has shifted. Today, plasticizers and esters make up 62% of total consumption, as against 22% in 1940. On the other hand, resins, which constituted 66% then, account for only 26% now (chart, page 7).

Phthalic anhydride went under allocation as early as October, 1942, when it was apparent that nonessential civilian demand—for cellulose acetate combs, buttons, brushes, costume jewelry—would

have to give way to military needs. By 1943, some 80% of all output was for war; in 1944, about 90%; and today, 94%. The other 6% is for such essential civilian uses as food preservatives, drugs, and telephone cable.

Slightly more than one-fourth of this year's allocation of 150,000,000 pounds will go for paints and varnishes, almost one-fourth for smokeless powder, and nearly one-fifth for insect repellent:

	% of Supply
Paint, varnish, lacquer	26%
Smokeless powder	24
Insect repellent	19
Rockets	5
Cable	4
Other plasticizers	10
Dyes & intermediates	8
All other	4
Total	100%

Until a year ago, military demand was

pretty much satisfied. But when the Army developed its new insectifuge early in 1944, phthalic became so tight that the Army, Navy, and Maritime Commission had to change paint specifications in order to insure delivery of tanks, ships, trucks, and planes (WP-Mar25'44, p8).

Between mid-1943 and early 1944, new capacity for 20,000,000 pounds was authorized to take care of military needs. But the insect repellent forced the building of an additional 30,000,000 pounds of capacity, which will come into operation in May, June, and July of this year. (These plants are included in the estimated 150,000,000-pound production for this year. When they are completed, the industry's yearly capacity will be 175,000,000 pounds.)

Now a new program is being approved which will provide another 15,000,000 pounds—all that present naphthalene

facilities can supply. (Naphthalene is limited by the amount present in coal tar—a by-product in the coking of coal.) But these plants won't be in operation until the end of this year, and they will be insufficient to make up the deficit in Army and Navy requirements.

An attempt is being made to produce phthalic from orthoxylene instead of naphthalene. If it's successful, more phthalic facilities will be approved, but they won't come into operation until next year.

Up to now, manpower hasn't been a problem in phthalic production, mainly because manufacturers making additional products (dyes, paints, esters) pull workers away from them to meet labor shortages in phthalic. The real manpower shortage is in the production of naphthalene—of which 60% is for phthalic. Most of these plants are located in

KEY STATISTICS OF THE WEEK

	Latest Week	Previous Week	Month Ago	Some Week			
				1944	1943	1942	1941
War Program - checks paid (millions of dollars).....	1,746	1,914	1,638	1,524	1,308	684	163
War bond sales - E, F, G, (millions of dollars).....	177	186	243	170	204	113	-
Money in circulation (millions of dollars).....	25,850 ^f	25,836 ^g	25,750	21,037	16,250	11,593	8,842
Wholesale prices (1926=100) †							
All commodities.....	105.1 ^f	105.1	104.8	103.7	103.3	97.2	81.6
Farm products.....	127.0	127.4	126.4	124.6	124.2	103.1	72.3
Foods.....	104.5	104.6	104.1	104.3	107.6	95.5	75.6
All other.....	99.4 ^f	99.4	99.3	98.3	96.6	95.3	85.1
Petroleum (000 barrels)							
Total U. S. stocks ^g	395,421	396,763	398,634	411,983	439,410	497,452 ^f	502,614 ^f
Total East Coast stocks ^g	57,483	56,348	57,662	55,874	43,828	60,710	75,316
East Coast receipts ^g	1,818	2,043	1,773	1,791	1,199	*.A.	*.A.
Bituminous coal production (000 short tons).....	1,971	1,838	2,047	2,050	2,087	1,849	1,881
Steel operations (% of capacity).....	96.6%	96.9%	96.4%	99.2%	99.1%	99.0%	99.8%
Freight cars unloaded for export, excluding grain ^g							
Atlantic Coast ports.....	3,654	3,652	3,304	2,979	1,643	1,947	1,257
Gulf Coast ports.....	604	540	396	456	362	470	373
Pacific Coast ports.....	2,268	2,217	2,058	1,493	959	407	173
Department store sales (1935-39=100) †.....	220 ^f	212	177	172	147	148	116

^f Preliminary ^g Revised ^h Excludes military-owned stocks ⁱ Estimated ^g Daily average * . A. - Not available † Unadjusted

tight labor areas and pay lower wages than many neighboring war plants. Moreover, some workers in the 26-29 age group will be lost to the draft after April 1.

Stocks of phthalic are currently at 4,000,000 pounds—a minimum working

level. And although facilities coming into production in the second and third quarters will lessen the deficit in the second half, the armed forces—for this year at least—will have to divide a short supply as best they can.

Spark of Life for Radio and Radar

Armed services now get 85% of radio receiving tubes, with radar the biggest user. Production job is tougher, involving frequent change-overs, more man-hours, etc

FOR MOST PEOPLE, the mention of "radio receiving tube" is associated with their radio sets at home. But radio receiving tubes (or electron receiving tubes, as they are also called) do much more than pluck your favorite song or symphony out of the air waves. They make it possible to train an anti-aircraft gun on its target, detect an enemy battleship miles beyond the horizon, bomb a railway station with bull's-eye accuracy, receive orders from a command post far from a foxhole, and synchronize the firepower of a Superfortress as it fights over Tokyo.

Radio receiving tubes are an indispensable part of the communication and electronic equipment that is fighting this war. Yet supply has been unable to keep up with demand. Last year's experience is typical. Although requirements for the Army, Navy, export, civilians, etc. came to almost 161,000,000 receiving tubes, production totaled some 130,000,000, about 20% less. Production difficulties—the result of rapid-fire changes in the art of radio and radar—are chiefly responsible for the inability to meet requirements. The industry has a labor shortage too.

Prior to Pearl Harbor, approximately 90% of the industry's production went into home-type radio receivers; the re-

mainder went into sound movie equipment, medical apparatus, public address systems, and industrial equipment such as automatic welding and motor controls. In the spring of 1942, however, the entire radio industry was converted to war. Since that time, the proportion of radio receiving tubes going into munitions items has increased steadily. Of the 130,000,000 units produced last year, for example, some 111,000,000, or 85%, went to the armed services:

	<u>Production</u> (million tubes)	<u>% to</u> <u>Military</u>
1941	148	9%
1942	99	56
1943	99	80
1944	130	85

As a result of this shift to military production, the supply of replacement tubes for home radios was cut sharply. In 1941, with home radios still being produced, civilians used an average of 2,830,000 replacement tubes each month. Since 1942, however, the supply has been limited to approximately 1,500,000—and of course demand is pyramiding as old radios remain in service. To meet "minimum" replacement needs, the Office of Civilian Requirements figures that civilians should be getting more than twice as much, some 3,300,000 monthly. And if all who wanted replacement tubes could get them, the monthly estimate would jump to almost 6,000,000.

In contrast to the consistent toppling

of production records in planes, tanks, ships, and guns, wartime output of tubes is only now heading toward an all-time high. (A peak of 148,000,000 was reached in 1941.) But a radio receiving tube produced today is manufactured for a vastly different job. It involves more machinery, more man-hours, more production ingenuity. For around two-thirds of output now goes into radar, a brand new industry.

ADAPTING TO WAR

As war demonstrates the need for certain types of radar devices, receiving tubes must be designed to equip them. Airplanes, for example, have radio receivers set at a predetermined wavelength so that pilots can receive messages automatically, without time-consuming dial-twisting. That called for a new kind of electron tube. The Superfortress has a revolutionary system of

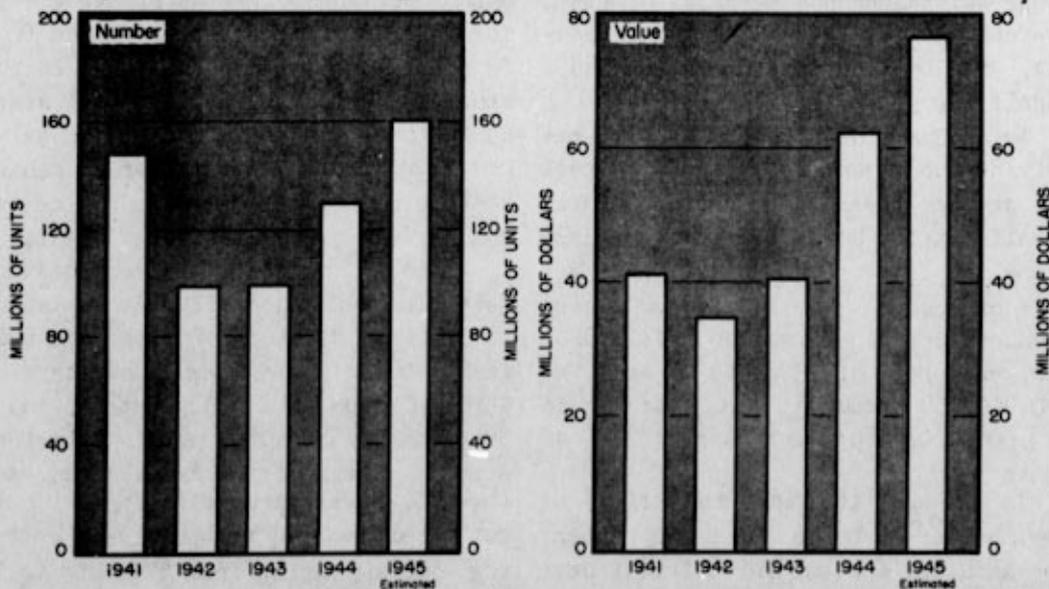
automatic remote fire control. Again that called for a new electron tube.

What's more, electron tubes, like the radar equipment they bring to life, must frequently be junked because improvements are constantly being made and because scientific counteraction by the enemy obsolesces what is already on hand. Once the Luftwaffe solves the combination of a piece of our air forces' IFF apparatus (identification--friend or foe), the set must be discarded and a new one developed. That means stopping assembly lines as the necessary change-over to another set is made.

This interruption to assembly lines has been characteristic of the industry's wartime operations. For not only have there been constant shifts among individual tube types (which run to upwards of 600), but also among the five major tube groups: GT Glass, Standard Glass, Metal, Lock-in, and Miniature. The so-

TWIN PEAKS FOR RADIO RECEIVING TUBES

Estimated production will be 23% ahead of last year, 8% above the previous high in 1941 unitwise, 87% greater dollarwise.



WAR PROGRESS

called miniatures were little known before the war; civilians may remember them as the thimble-sized tubes used in the midget portable radios developed just before Pearl Harbor. Today they rank as the second most important group in terms of volume (GT Glass is first). A superbomber is equipped with somewhere in the neighborhood of 700 miniatures, which go into a variety of its equipment—from communication and navigational instruments to bombing and fire-control devices.

WEIGHT SAVERS

The demand for miniatures reflects the demand for lighter and more compact pieces of equipment. Every bit of weight saved in an IFF set can be translated into increased fuel or bomb load; the effectiveness of communications on a newly won beachhead depends, in part, on the compactness of a platoon leader's Handy-Talkie.

Essentially these miniatures are doing the work of tubes several times larger. They are among the most exacting of precision jobs and call for extremely close tolerances and spacing. Certain operations, such as welding and threading, can be done only by hand—and a magnifying glass is essential.

Aside from miniatures, all radio receiving tubes now being produced call for greater precision than ever before; specifications have been tightened all along the line. As a result, they are more expensive. The 148,000,000 tubes produced in 1941 were valued at \$41,000,000, an average of 28 cents apiece; the 130,000,000 produced last year ran to \$62,000,000, a per-unit average of 48 cents.

To produce the wartime variety of new, harder-to-build receiving tubes, the industry's plant and equipment have almost tripled since 1941, to an esti-

mated \$100,000,000. This reflects expansion at assembly plants only (including feeder units): between 20 and 25 plants among seven companies.

It is estimated that these seven companies need at least 3,000 more workers at the present time to meet their schedules. Practically all of the requirement is for women. In contrast to men, they have the necessary patience, the needed dexterity. As a matter of fact, women have always outnumbered men in the industry's assembly operations. For every 10 people these plants employed before the war, seven or eight were women—about the same proportion that holds today. The work is generally clean. "A girl could go to work in an evening gown and scarcely soil it," as one production man put it. But most plants are in tight labor areas and must compete with higher paying war plants.

PAY PROBLEMS

The Newark, N.J., area illustrates the difficulty. Here the industry has three companies, which account for about 50% of total output: RCA, National Union, and Tung-Sol. The starting wage for women in these factories ranges from 50 cents to 54 cents an hour. In the same area, however, a woman can start at National Pneumatic for 70 cents an hour, at Crucible Steel for 78 cents, at Federal Shipbuilding for 80½ cents, and at General Aniline for 94 cents.

Although competition around Boston, Mass., is not so stiff, the situation is similar. Raytheon, Hytron, and Sylvanian are offering women a starting wage of from 45 to 50 cents an hour. But United Shoe Machinery, Watertown Arsenal, Boston Port of Embarkation, and the U.S. Naval Ammunition factory hold out the attractive alternative of starting rates ranging from 57 cents to 74 cents an hour.

War Progress is loaned to you for official use. It contains CONFIDENTIAL information affecting the security of the United States. Revelation of its contents in any manner to unauthorized persons is prohibited by the Espionage Act.

OFFICIAL RULES for its CUSTODY

- (1) Not to permit information from any copy in their custody to become available to anyone except a Government employee under their immediate supervision who will be bound by the restrictions hereby agreed to and who requires access to WAR PROGRESS in connection with his official duties.
- (2) To keep all copies in a securely locked container when not actually in use.
- (3) Not to incorporate information from WAR PROGRESS in any record unless the use of such record is restricted as if the record were itself a copy of WAR PROGRESS.
- (4) To give prior written notice of any change of address.
- (5) On written request, or before separation from the Government position which entitles them to receive WAR PROGRESS, to return all copies charged to their account.

WAR PROGRESS

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 2(E) and 5(D) or (6)
Gannett Co. Inc. Letter, 11-16-78
The JCS, 1973 MAR 14 1973

Economic Data
Special Articles

WAR PROGRESS

*C.F.
War Production
Board*

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
E.O. 11652, Sec. 5(E) and 6(D) of (a)
Comstock Dept. Letter, 11-16-78
By RHP, Date MAR 14 1973

Transportation: Fewer But Tougher Miles

*x173
x4705*

Number 238

April 7, 1945

Form G.A. 95-81D 1-2-44		UNITED STATES OF AMERICA WAR PRODUCTION BOARD		NO. S- 89922	
R COURIER SERVICE CONTROL RECORD					
FROM: STATISTICS DIVISION (DIVISION OR OFFICE)			TO: The President (DIVISION OR OFFICE)		
P.O. # (NAME)			(NAME)		
(ROOM NUMBER)		BUILDING		The White House (ROOM NUMBER) (BUILDING)	
DESCRIPTION OF DOCUMENT: F 238 01 3					
COPY 3 Addressee's Copy		THE SERIAL NUMBER IN THE UPPER RIGHT-HAND CORNER SHOULD BE IDENTICAL TO NUMBER ON SENDER'S RECEIPT			

GPO 16-37537-8

WAR PROGRESS

Prepared in the War Production Board
Bureau of Program and Statistics

War Progress is a confidential report designed to provide a coordinated and continuing picture of the overall war program for the various war agencies. To this end, it presents, analyzes, and interprets basic statistical and economic information, and from time to time examines the pros and cons of controversial questions.

War Progress is an official publication of the War Production Board, statements in it are not to be construed as expressing official attitudes of the Board as a whole, or even of individual members. Conclusions, whenever reached, should be considered editorial conclusions.

War Progress is prepared by the War Progress Staff: David Novick (acting director), Winona Hibbard (managing editor), James J. Cullinane, Thomas A. Falco, Roy T. Frye, (drafting), A. R. Hilliard, Morris Katz, Chester L. Kieffer, Martha Menaker, J. S. Werking (production).

This report contains CONFIDENTIAL information affecting the defense of the United States. See inside back cover for rules of custody.

Changing Directions for Transportation

While ton-miles are expected to decrease in '45, volume to West will be greater and harder-to-handle export freight will rise. Boxcar shortage expected to be acute.

THE TRANSPORTATION BURDEN in 1945—both passenger and freight—is expected to be somewhat lighter than it was last year, but it will be more cumbersome and harder to handle, especially after V-E Day when the changing nature of the load and shifting directions of its movement will be felt most acutely. Consequently, the Office of Defense Transportation warns that some restrictions on movements of civilian freight may become necessary this year.

Here is the freight ton-mile comparison between ODT's post V-E Day estimate and the accomplishments of the past two years (billions of ton-miles):

	1943	1944	V-E to % Dif.	
			V-J	From
	<u>1943</u>	<u>1944</u>	<u>12 mos.</u>	<u>1944</u>
Railroads	734.7	746.3	716.4	-4.0%
Highways	48.2	48.2	48.2*	0
Gr. Lakes	115.4	118.0	119.4	+1.2
Other				
waterways	26.3	27.0	27.0	0
Pipelines	96.7	133.0	131.5	-1.1
Total...	1,023.3	1,072.5	1,042.5	-2.8%

* Uncertainty over truck replacement and tire programs precludes a firm estimate here.

But these figures give no real measure of the difficulties involved in the job ahead. They say nothing about deterioration of equipment—and as for the load to be carried, you can't make comparisons in ton-miles without taking

into consideration what the tons consist of and where the miles are located.

More of the miles this year will be in the West. Tanks, guns, shells, and myriad items of equipment will be moving in increasing volume from Eastern and Midwestern manufacturing centers to Pacific ports over railroads whose grades and curves were originally designed to haul heavy traffic in the opposite direction. And Western lines have 9,000 fewer miles of double tracks than Eastern lines; equipment is tied up on sidings when traffic is heavy.

RIGHTING "WRONG-WAY" SYSTEM

It is true that the capacity of Western railroads has been greatly increased during the war. Before Pearl Harbor, when aircraft and other war industries on the West Coast were expanding, the "wrong-way" rail systems developed bottlenecks, and the railroads launched an extensive program of double-tracking, modifying grades and curves, widening tunnels, rebuilding bridges, and expanding terminal facilities. An intricate system of centralized traffic control, under which a mile-by-mile check on the location of trains is maintained, was established to expedite shipments over single-track lines. Last year the roads were able to move three times as much freight to the Pacific Coast as they did in 1939.

But this year troop and freight movements will push the Western system to the very limits of its capacity—possibly some 10% over 1944. When this increase is realized, Pacific ports will be approaching their maximum load. And on the basis of preliminary estimates

on the number of troops to be moved monthly to the West Coast, the railroads now feel they can move all the freight Pacific ports will be able to ship out. But upward revisions of the figures on troop movements would result in a proportionate decrease in freight movements. And in any event, neither the railroads nor the Pacific ports will be able to handle all of the shipments destined for the Far East, hence a substantial proportion of these will have to move from East Coast ports through the Panama Canal. The East Coast and Gulf ports, in addition, will be taxed with heavy relief and rehabilitation shipments which will take the place of munitions going to Europe. Here the nature of the load, rather than its direction, will make the most trouble for railroads in 1945.

EXPORT FREIGHT DEMANDS

And most of this trouble will stem from difficulties in handling export freight. The ratio of freight export shipments to total ton-miles has been increasing sharply since the start of 1943. In January, 1945, it reached an all-time high. Because of Pacific war requirements and relief shipments to Europe, it is not expected to decline appreciably after V-E Day. And export freight is voracious in its demands for transportation equipment. It requires

more freight cars and trucks for collection from scattered factories, more time to load and unload, more switching in yards and ports, and more manpower.

Thus the nature of the load will inevitably cause shortages in certain types of equipment. Currently the shortage of boxcars is the most critical problem facing the railroads. Export freight is a heavy user of boxcars. So are manufactured products for domestic use. And so is grain.

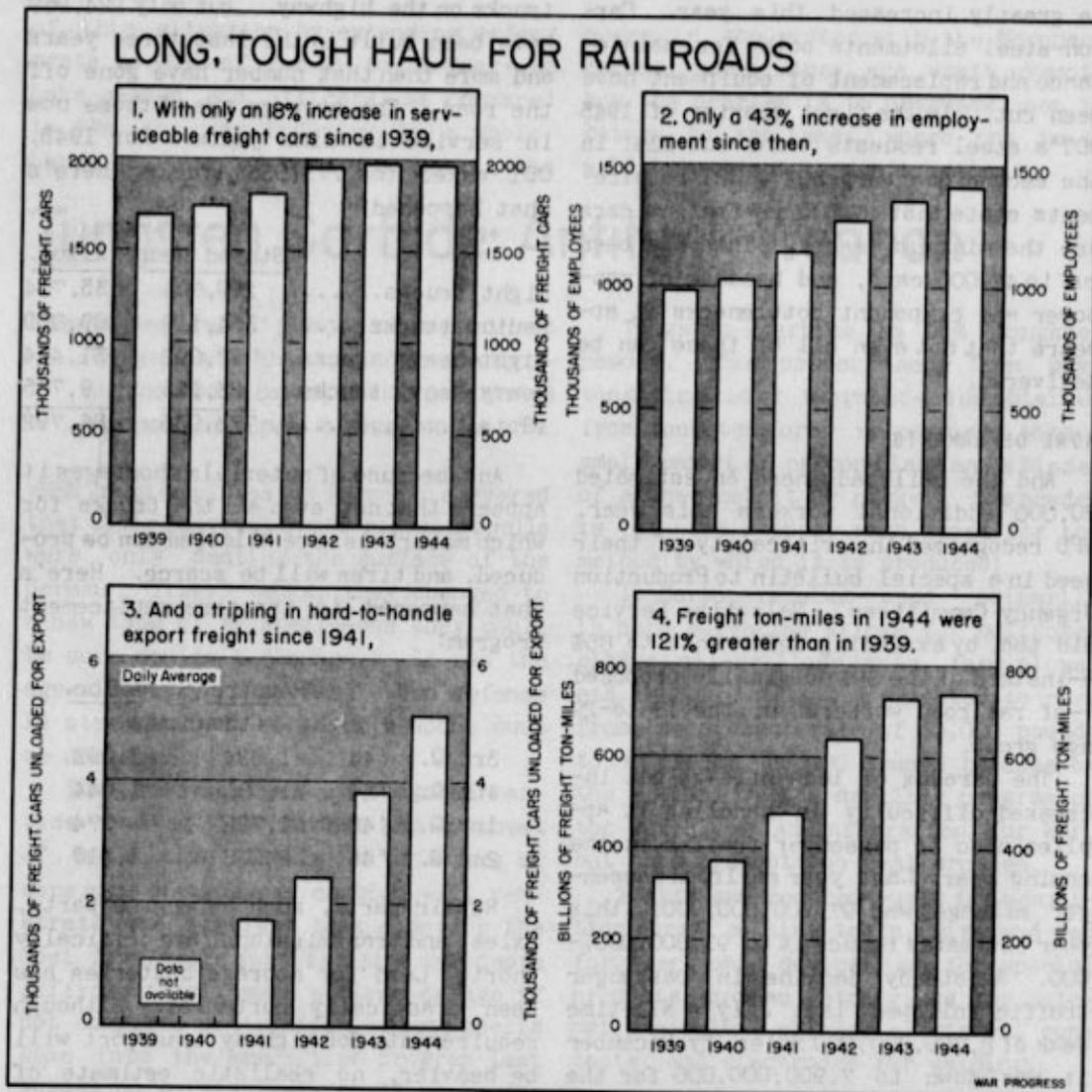
PILED-UP GRAIN

The boxcar shortage would be a problem even if 1945 were going to be a normal year—which it isn't—because of the backlog of unmoved grain and other commodities piled up by freight embargoes resulting from storms. To a large extent this reflects a lack of manpower to unload and move existing equipment quickly. At the beginning of March, some 18,000,000 bushels of wheat which should have been out of the way several weeks before were still stored on Great Lakes boats. Millions of bushels of wheat are still stored in the open in the West and must be moved to flour mills before warm spring rains begin. Some 2,130 Western elevators are filled with last year's grain crop—about 40% of it damp corn which will spoil if it isn't moved before hot weather. And the elevators must be cleared, in any event, to be ready for the flow of new wheat.

Some 50,000 boxcars needed in the West to cope with the grain flow were tied up in the East on March 1, either because of unloading delays or because they were being used to haul munitions to ports. Western grain men say the return of these cars to the West must be stepped up to meet the grain crisis. Once the Western grain avalanche gains a lead in the spring, it cannot be over-

IN THIS ISSUE:

CHANGING DIRECTIONS FOR TRANSPORTATION . . .	1
TUNGSTEN CARBIDE: ANTITANK WEAPON	5
SCORECARD ON MERCHANT SHIPPING	7
SUPERBOMBER SETS PACE FOR GOOD MONTH	9
WAR PROGRESS NOTES	11
KEY STATISTICS OF THE WEEK	11



taken until the following year, railroad men assert.

Further complicating the boxcar shortage is the Army's demand for the movement of 142,000 carloads of wheat to Eastern ports between March and August while the Western grain flood is at its height. The longer haul means car time lost while empties are returning to the wheat belt.

Caught in the boxcar squeeze between export freight, grain, and domestic movement of war freight will be civilian

shipments. Even if civilian production could be held near current levels after V-E Day, there would be difficulty finding boxcars to move it.

Open-top cars to haul ore, coal, steel products, and war material are short, too. ODT reports the current coal-car shortage is the worst in 20 years. In addition, iron ore shipments will be heavier this year than last.

And while the load is becoming more cumbersome, the capacity of the transportation system to handle it will not

be greatly increased this year. Carbon-steel allotments both for maintenance and replacement of equipment have been cut. In the first quarter of 1945 ODT's steel requests were cut 23%; in the second quarter, 30%. ODT requirements state that 46,000 new freight cars are the minimum needed. This has been cut to 42,000 cars, and because of manpower and component bottlenecks it appears that not even all of these can be delivered.

MORE DEFERMENTS

And the railroads need an estimated 80,000 additional workers this year. WPB recognized the criticality of their need in a special bulletin to Production Urgency Committees. Selective Service did too, by extending deferments to 85%—instead of the 30% originally proposed—of railroad workers in the 18-to-29 age group.

The paradox of less mileage but increased difficulty in handling it applies also to passenger traffic in the coming year. Last year railroad passenger mileage was 97,700,000,000; this year estimates reduce it to 93,800,000,000. A steady decline in passenger traffic followed last July's all-time peak of 8,700,000,000 miles. By December it was down to 7,900,000,000 for the month. Convention bans, discomfort of waiting in line and standing in aisles, and restrictions of special trains will continue to discourage civilian traffic. But the trains will be jammed with soldiers on furlough from Europe and a good deal of equipment will be monopolized for troop trains and movement of wounded veterans. The squeeze on civilian travel will be particularly tight on the West Coast, where troop movements will be heaviest.

The outlook for highway transport is dark. In 1941 there were 5,086,204

trucks on the highway. But only 224,969 have been built in the last three years and more than that number have gone off the road. The average age of those now in service is nine years. For 1945, ODT asked for 773,935 trucks; here's what happened:

	<u>Stated Req.</u>	<u>Alloc.</u>
Light trucks.....	299,600	35,704
Medium trucks.....	354,118	109,859
Light-heavy trucks.	97,092	31,464
Heavy-heavy trucks.	23,125	9,765
Total.....	773,935	186,792

And because of materials shortages it appears that not even all the trucks for which materials were allotted can be produced, and tires will be scarce. Here's what happened to the tire replacement program:

	<u>Require.</u>	<u>Alloc.</u>
	(thousands)	
3rd Q., '44	1,824	1,093
4th Q., '44	1,686	1,044
1st Q., '45	1,722	974
2nd Q., '45	2,032	1,410

Repair parts, such as engine parts, axles, and transmissions, are critically short. Lead for storage batteries has been drastically curtailed. Although requirements for highway transport will be heavier, no realistic estimate of what the industry will be able to carry can be made.

GREAT LAKES LOAD

Great Lakes carriers this year are scheduled to move 188,500,000 tons of ore, coal, limestone, and grain—the heaviest movement in their history. Ore shipments alone are scheduled for 94,000,000 tons, as compared with 91,000,000 tons last year.

The manpower shortage is the major problem on the Lakes. Selective Service recently recognized the criticality

of this situation by extending deferments to 90% of the 18- to 29-year-old Lake seamen and officers, as compared to 30% for war industry as a whole. Large numbers of Lake seamen sail the

ocean in the winter with the Merchant Marine, where they are draft exempt. Now the problem is to persuade them to return to the Lakes, where one in 10 will be subject to draft calls.

Tungsten Carbide: Antitank Weapon

Used in new shell, it pierces heaviest armor. Requirements for ammunition cores, cutting tools soar; big expansion program is planned. Ore supply is adequate for now.

WHEN American invasion forces discovered that their heaviest armor-piercing shells were only denting the surface of the German "Tiger" tanks, they changed to a new type of AP shell—one they could be sure wouldn't "bounce." It was the age-old story of warfare: when defense is strengthened, stronger weapons must be devised.

The solution was in tungsten carbide—one of the hardest and toughest of materials. Shells with a peg or core made of tungsten carbide will penetrate the heaviest tank armor or the most formidable fortification to a depth sufficient to insure serious damage if not complete destruction. These shells came into the ammunition program last August on a relatively small scale for experimental purposes. Now that battle experience has demonstrated their effectiveness and accuracy of firing, requirements have shot up.

TOOLS FOR SHELLS

At the same time, demands for all types of ammunition are increasing so rapidly that there is a serious shortage of tungsten carbide cutting tools necessary for machining shells. The flow of tools must be accelerated not only for established ammunition plants but for new plants under construction.

Tungsten carbide is 94% tungsten powder. This powder, made from pure tungstic acid or tungstic oxide obtained from tungsten ore, is combined with a small amount of carbon black and a binder of either cobalt or nickel. The powder is of two types, each named for the method by which it is produced:

1. Carbon-reduced—used primarily in hard surfacing alloys for bulldozer blades, oil-drilling tools, farm plows, etc. Monthly output is expected to rise from the present rate of 60,000 pounds to at least 80,000 pounds because of the stepup in the drilling program of the Petroleum Administration for War, but this presents no real problem.

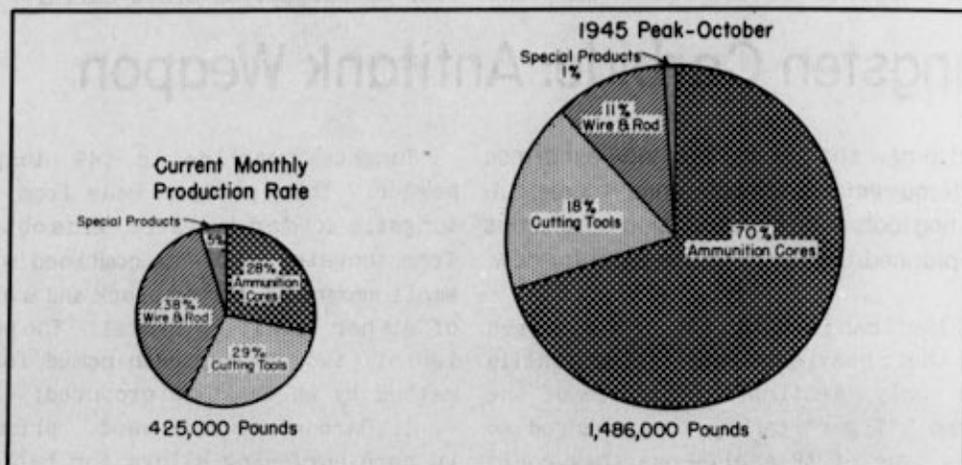
2. Hydrogen-reduced—used for ammunition cores, cutting tools, wire and rod for electronic devices, and for special products, such as rotor rings for automatic airplane pilots, electrical contacts, and electrodes for welding.

MORE AND CHEAPER

Although carbon-reduced powder has been used on an experimental scale in the making of cores, the big expansion is to be in hydrogen-reduced powder. Producers have had more experience in this field and there is a larger and cheaper supply of hydrogen in the locality where the expansion is planned. Current production runs to 425,000 pounds monthly, compared to 258,000 pounds last July (before cores entered the program), but output must rise another 250% by October to meet peak requirements. In

MORE POWDER FOR HARD-HEARTED AMMUNITION

Currently, 28% of all hydrogen-reduced tungsten powder goes for ammunition cores. By next October, when output triples, they'll take 70%.



WAR PROGRESS

the case of powder for cores, a 770% boost is called for:

	Current Mo. Rate	Peak Rate Oct. '45	% Change
	(000 pounds)		
Am. cores....	120	1,044	+770%
Cutting tools	125	252	+110
Wire & rod....	160	160	0
Special prod..	20	20	0
Total.....	425	1,486	+250%

Although output of the 12 existent powder plants is being stepped up, their total maximum capacity (due to be reached in June) is only 500,000 pounds per month—one-third of peak requirements. Consequently, new facilities will have to be built. The situation is similar for the six plants making ammunition cores.

To provide the additional facilities required for both powder and cores, the Army will build a new \$6,000,000 ordnance plant at Natrium, W. Va., which will take at least six months to complete. It will be a single, integrated, government-owned facility to be operated

privately in cooperation with Army Ordnance. The basic unit will be a chemical refining plant for reducing the ore into powder, with a monthly capacity of 1,000,000 pounds—four times that of Cleveland Wire, the largest existent plant. A second unit will manufacture the powder into carbide, while the third will produce the cores.

Additional facilities are also required for cutting tools; four of the 12 tool-manufacturing plants are being expanded, at a cost of \$1,500,000. They are Carboloy, Detroit; Kennametal, Latrobe, Pa.; Firth-Sterling, McKeesport, Pa.; and Vascoloy-Ramet, North Chicago. The first expansion program will be completed in six weeks, the last in six months.

Manpower is a problem all along the line, but labor needs are relatively small. Only 350 additional workers will be needed by the expanding tool plants, yet these will be difficult to obtain since skilled operators are required. In an effort to hold on to the workers

they now have, the tool manufacturers have requested draft deferments for all their employees. When the new ordnance plants get into full operation they will employ about 750. In the meantime, the existing powder and core plants require 350 additional workers to get their production up to maximum capacity.

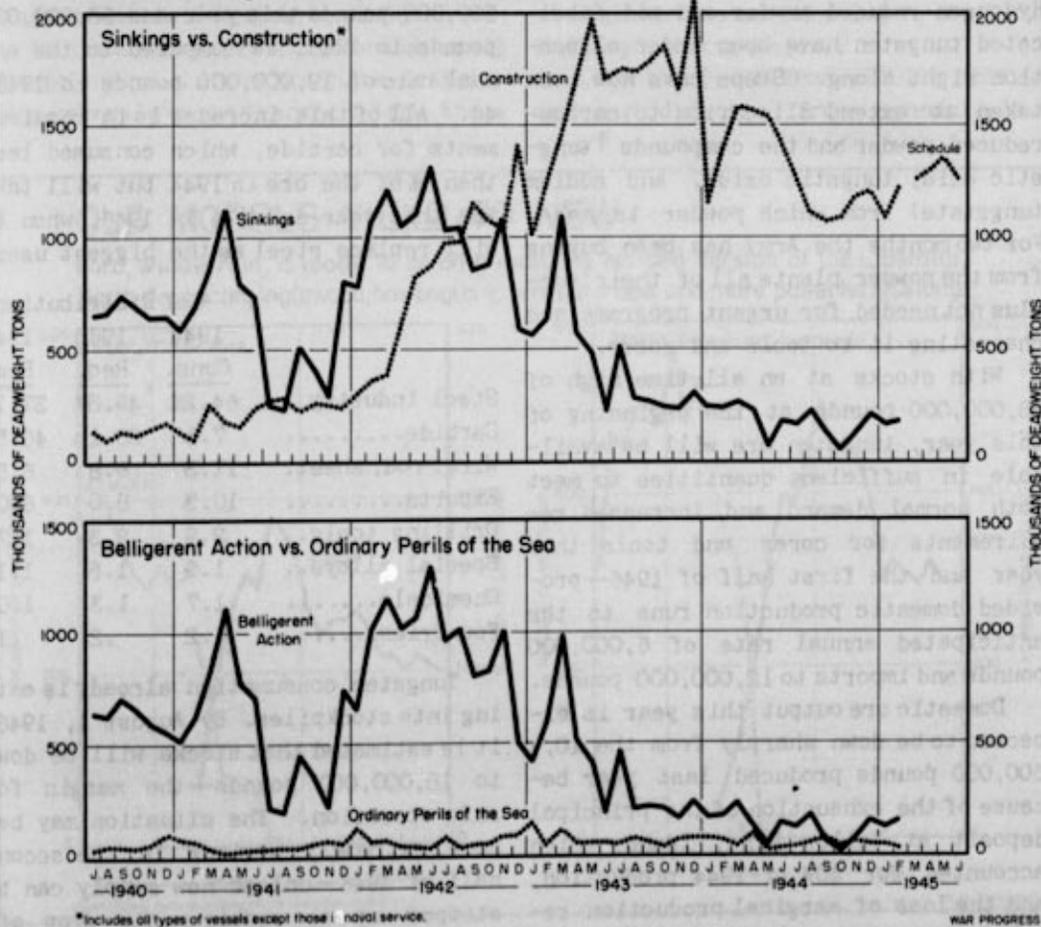
To aid in reducing their big backlogs, tool manufacturers have requested the immediate return from England of \$1,000,000 of blanks (carbide cut into desired sizes but not fashioned into

tools) which were lend-leased in 1942.

An educational program to promote better utilization of tools has been launched as a conservation measure. The largest consumption is occurring among new users (chiefly those participating in the shell program) who are inexperienced in the handling of carbide cutting tools, which are so perishable that one set may be ruined on a single shell. The Army has retained two consultants to advise contractors, and movies are being shown and lectures

SCORECARD ON MERCHANT SHIPPING

Sinkings of United Nations vessels rose slightly in February, as new construction reached the highest level in seven months.



given in the shell-turning plants on the proper methods of grinding and preserving tools.

A drive for scrap is also under way. Some carbide recovered from tool scrap has already been made into cores. However, only a minor amount of scrap is available and the recovery cost is far greater than the price of virgin material. One of the difficulties in utilizing scrap is in pulverizing it to the same grain size as the original powder.

TIGHTER CONTROLS

Controls over powder production are being tightened in an effort to divert all powder possible to tools and cores. Hydrogen-reduced powder and all fabricated tungsten have been under allocation right along. Steps have now been taken to extend allocation to carbon-reduced powder and the compounds (tungstic acid, tungstic oxide, and sodium tungstate) from which powder is made. For two months the Army has been buying from the powder plants all of their surplus not needed for urgent programs and channeling it to tools and cores.

With stocks at an all-time high of 38,000,000 pounds at the beginning of this year, tungsten ore will be available in sufficient quantities to meet both normal demand and increased requirements for cores and tools this year and the first half of 1946—provided domestic production runs to the anticipated annual rate of 6,000,000 pounds and imports to 12,000,000 pounds.

Domestic ore output this year is expected to be down sharply from the 10,500,000 pounds produced last year because of the exhaustion of the principal deposit at Yellow Pine, Idaho, which accounted for 40% of 1944 production, and the loss of marginal production resulting from the removal of premiums.

Imports will also be considerably lower. Last year they totaled 18,000,000 pounds, of which 3,500,000 pounds were from China and the balance from South America. Tungsten from China is no longer available in any sizable quantity (many of the mines are in territory recently captured by Jap troops), and shipments from South America will drop because many operations were shut down when the Foreign Economic Administration reduced prices and shortened the period of contract cancellation. Most of the mines are in the interior, not readily accessible; it would require months to reopen them even if operators agreed to do so without long-term contracts.

Ore consumption is estimated at 24,500,000 pounds this year and 33,000,000 pounds in 1946, as compared to the annual rate of 19,000,000 pounds in 1943-44. All of this increase is in requirements for carbide, which consumed less than 8% of the ore in 1944 but will take 28% this year and 47% in 1946, when it will replace steel as the biggest user:

	% of Distribution		
	1944 Cons.	1945 Req.	1946 Req.
Steel industry..	64.2%	49.8%	37.1%
Carbide.....	7.5	28.1	46.5
Wire, rod, sheet.	11.3	8.8	6.5
Exports.....	10.3	8.0	6.0
Drilling tools..	2.9	2.3	1.7
Special alloys..	1.9	1.5	1.1
Chemicals.....	1.7	1.3	1.0
Foundries.....	.2	.2	.1

Tungsten consumption already is eating into stockpiles. By August 1, 1946, it is estimated that stocks will be down to 18,000,000 pounds—the margin for safe operation. The situation may become extremely serious in the second half of 1946—unless new supply can be stepped up or requirements drop off after V-E Day.

Superbomber Sets Pace for Good Month

Planes make airframe weight schedule first time in 10 months. Critical models gain 21% but fall 5% short of goal. Deficits are in Thunderbolts, Harpoons, Invaders.

PLANE production ran high, wide, and handsome last month. At 79,200,000 pounds—7,053 planes—airframe weight (excluding spare parts) was on schedule for the first time since May, 1944. On a daily basis, output was at the same rate as February. But because March had three more working days (27 vs. 24), the increase over February was 11%. No greater monthly gain has been recorded since exactly two years ago, when the program was building up rapidly.

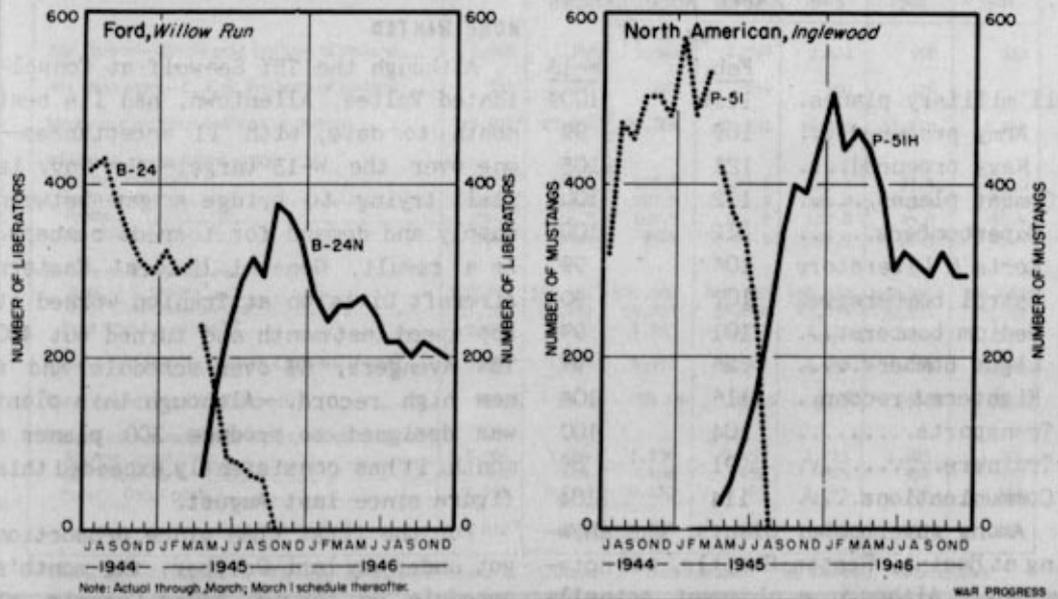
In contrast to previous months, model change-overs did not dominate deficits from schedule during March. Of the three

important misses, only one was accounted for by change-over complications: the P-47N Thunderbolt at Republic, Farmingdale; acceptances of 229 were 8% short of schedule. However, March is almost certain to mark just a temporary break in the chain of model change-over problems. It just happened to be the month when almost all of the current crop of revisions—on the Corsair, Invader, Sky-master, etc.—were finally brought under control. New ones are on the way. For example, Ford's Willow Run plant is beginning to switch to a radically new version of the Liberator, the B-24N (WP-Feb3'45, p11); similarly, North American at Inglewood is now shifting to the P-51H Mustang (chart, below).

Like the P-47N Thunderbolt, the remaining deficits from schedule last

OLD MODELS YIELD TO NEW

Ford, Willow Run, is ready to go on a radically revised version of the Liberator. North American, Inglewood, has begun to turn out a new and more powerful Mustang.



month were also in critical models. The PV-2 Harpoon was still being snagged by production difficulties incident to installation of wings, and acceptances of 70 planes at Lockheed, Burbank, were 35% below schedule. Over at Douglas, Tulsa, 175 Invaders came through as against a schedule of 206. However, this was ahead of the revised goal of 150, established during the latter part of the month. Tulsa's program had to be reduced to bring it more in line with practical production possibilities. As a result of these deficits, the 14 items on February's critical aircraft list missed the March schedule of \$483,000,000 by 5%, despite a monthly gain of 21%.

SUPER PERFORMANCE

Pacemaker last month was the B-29 Superfortress, which ran 12% ahead of February and topped its schedule of 290 by one plane. As an offset to the B-29, acceptances of 18 B-32 Dominators were one below schedule. Thus superbombers as a group were right on the beam last month at 309 planes. Results by major groups follow (airframe weight basis):

	March Acceptances as % of	
	Feb.	W-13
All military planes.	111%	100%
Army procured....	109	99
Navy procured....	121	105
Combat planes.....	112	100
Superbombers.....	112	100
Forts & Liberators	106	99
Patrol bombers....	107	90
Medium bombers....	101	97
Light bombers.....	126	97
Fighters & reconn..	116	106
Transports.....	104	100
Trainers.....	91	86
Communications....	114	104

Among superbomber plants, the showing at Boeing, Renton-Seattle, was noteworthy. Although employment actually

fell off, acceptances scored a monthly increase of 33% to meet the schedule of 80 planes. The War Manpower Commission program of interregional recruitment for this plant has been successful and employment has already attained its scheduled peak. But the problem of turnover remains. And—as illustrated by last month's experience—this is being met, in part, by increased worker efficiency.

Fort-Liberator acceptances totaled 743 (307 B-17s and 436 E-24s), three less than called for by W-13. Although four new-type Liberators—B-24Ns—were slated at Ford, Willow Run, none came through; this month's schedule calls for 61 of these planes. However, the change-over to this model represents a major re-tooling job.

Plant of the month was Grumman, Bethpage. It came through with 605 F6F Hellcats as compared with a schedule of 500, six new F8F Bearcats versus a schedule of five, and 48 new F7F Tigercats as against a schedule of 37. Only two F7Fs were accepted in February because Grumman failed to receive subcontracted parts.

MORE WANTED

Although the TBY Seawolf at Consolidated Vultee, Allentown, had its best month to date, with 11 acceptances—one over the W-13 target—the Navy is still trying to bridge a gap between supply and demand for torpedo bombers. As a result, General Motors' Eastern Aircraft Division at Trenton worked at top speed last month and turned out 400 TBM Avengers, 6% over schedule and a new high record. Although this plant was designed to produce 300 planes a month, it has consistently exceeded this figure since last August.

For the first time since production got under way last October, the month's schedule on the new F4U-4 Corsair at

Chance-Vought, Stratford, was taken in stride: 268 came through versus 150 in February and a goal of 245. Parts are now flowing in from subcontractors, assembly lines have been adjusted to the change-over, and experience accumulated on this model over the past several months is now paying off. At Consolidated Vultee, New Orleans, it looks as if the new management installed at the beginning of the year is taking hold. Acceptances of 20 PBV Catalinas almost doubled the February figure and again met the month's schedule.

Although it represents the largest—and most highly publicized—jet program to date, the Army's P-80 Shooting Star had a quiet month. Three were accepted at Lockheed, Burbank, as compared with a schedule of two. It was a different story at Ryan Aeronautical, San Diego, where the FR Fireball, the Navy's lead-

ing jet fighter, is being assembled. Here the acceptance count came to one out of a slate of 16.

March marked the close-out of production on the B-26 Marauder, the Army's fastest medium bomber. Since the United States went to war, more than 5,000 Marauders have come off the assembly line at Martin, Baltimore. These have bombed, blasted, and strafed their way from Midway to the Mediterranean, from Caen to Cologne—and now they're on the air road to Berlin.

War Progress Notes

VALUE VS. WEIGHT IN EXPORTS

ALTHOUGH cash exports amounted to only 20% of the total value of U.S. cash and lend-lease exports in 1944, they accounted for 59% of the shipping weight. That's because cash exports consist

KEY STATISTICS OF THE WEEK

	Latest Week	Previous Week	Month Ago	Same Week			
				1944	1943	1942	1941
War Program—checks paid (millions of dollars).....	1,920	1,746	1,921	1,594	1,611	692	211
War bond sales—E, F, G, (millions of dollars).....	311	177	204	239	201	126	-
Money in circulation (millions of dollars).....	25,901 [†]	25,834 [†]	25,864	21,191	16,353	11,610	8,944
Wholesale prices (1926=100) †							
All commodities.....	105.1 [†]	105.1	105.8	103.6	103.4	97.4	82.0
Farm products.....	127.3 [†]	127.0	127.2	123.9	124.7	103.4	73.2
Foods.....	104.8	104.5	104.5	104.2	107.8	95.9	76.4
All other.....	99.4 [†]	99.4	99.4	98.3	96.7	95.3	85.4
Petroleum (000 barrels)							
Total U. S. stocks [†]	397,207	395,421	400,606	413,122	439,392	497,335 [†]	503,662 [†]
Total East Coast stocks [†]	57,763	57,483	55,703	55,844	43,874	59,251	75,285
East Coast receipts ^{††}	2,062	1,818	1,793	1,750	1,130	N. A.	N. A.
Bituminous coal production (000 short tons) ^{††}	1,970	1,988 [†]	1,931	1,987	2,046	1,854	1,916
Steel operations (% of capacity).....	96.9%	96.6%	94.6%	99.1%	99.5%	98.8%	99.2%
Freight cars unloaded for export, excluding grain ^{††}							
Atlantic Coast ports.....	3,966	3,654	3,336	3,457	1,713	1,825	1,216
Gulf Coast ports.....	640	604	488	452	363	434	379
Pacific Coast ports.....	2,293	2,208	2,133	1,365	1,045	306	185
Department store sales (1935-39=100) †.....	232 [†]	226 [†]	182	182	155	157	124

[†]Preliminary ^{††}Revised ^{†††}Excludes military-owned stocks ^{††††}Estimated ^{†††††}Daily average N. A.: Not available † Unadjusted

chiefly of low-cost, high-tonnage items, such as fuel and petroleum products.

For instance, combat munitions cost about 20 times as much as fuel and petroleum products. Thus, munitions last year constituted nearly half of dollar exports, but only 3% of total tonnage. On the other hand, fuel and petroleum products accounted for only 6% of dollar volume, yet for 65% of weight.

On a tonnage basis, Canada (which buys for cash) got almost half of U.S. exports last year and the United Kingdom more than one-fourth, while Russia took only 7%. However, about 80% of Canada's share and 74% of the United Kingdom's portion of total shipping weight consisted of fuel and petroleum products, of which Russia received comparatively little.

Lend-lease shipments amounted to 34,000 tons, or 41% of the shipping weight of total U.S. exports in 1944, as compared to 80% of the value. The United Kingdom took an even larger percentage of the tonnage than it did of the dollar volume. Here's how 1944 lend-lease shipments by country compare in value and weight as a percent of total:

	% of Value	% of Weight
United Kingdom	44%	63%
Soviet Russia	31	17
Other Brit. Empire. 18		16
All other	7	4

Lend-lease exports were 24% higher in 1944 than in 1943, while cash exports were 3% lower.

PERILS OF THE SEA

LAST YEAR, somewhat over 2,100,000 dead weight tons of United Nations vessels were lost by sinkings, against 5,500,000 in 1943 and 12,000,000 in 1942. But construction of 15,600,000 deadweight tons in 1944 brought the United Nations merchant fleet to an estimated 71,800,-

000, two-thirds greater than the tonnage in August, 1942, the low point of the war. Here's how the United Nations fleet has grown as sinkings have diminished:

	<u>Sinkings</u> (million dwt. tons)	<u>Fleet</u> (Year End)
1941	7.3	49.0
1942	12.0	45.7
1943	5.5	58.6
1944	2.1	71.8*

* Estimated.

Although sinkings have been reduced far below the peak in 1942, the rate of improvement during 1944 was not so great as in the previous year. In 1943, losses in the first half ran to 3,600,000 tons, and in the second half were down to 1,900,000—a drop of nearly 50%. But in the first six months of 1944, sinkings amounted to 1,200,000 tons, compared to 900,000 tons in the last half—a decline of only 25%. And in January and February of this year, sinkings are running at a higher rate than in the second half of last year (chart, page 7). However, the recent capture by the Russians of 45 submarines in Danzig plus the near-term collapse of Nazi resistance could result in further reductions in the months to come, despite the increased tempo of war in the Pacific.

Of the 2,100,000 tons lost last year, accidents, collisions, other "ordinary perils of the sea" accounted for 29%; enemy action, 71%. And during September and October, because of unusually small losses by enemy action, "ordinary perils" for the first time proved to be a greater menace to United Nations shipping than the combined submarines and planes of Germany and Japan.

The U.S. fleet—which is more than half the United Nations fleet—suffered 37% of Allied shipping losses in 1944, as compared with 28% in 1943.

War Progress is loaned to you for official use. It contains CONFIDENTIAL information affecting the security of the United States. Revelation of its contents in any manner to unauthorized persons is prohibited by the Espionage Act.

OFFICIAL RULES for its CUSTODY

- (1) Not to permit information from any copy in their custody to become available to anyone except a Government employee under their immediate supervision who will be bound by the restrictions hereby agreed to and who requires access to WAR PROGRESS in connection with his official duties.
- (2) To keep all copies in a securely locked container when not actually in use.
- (3) Not to incorporate information from WAR PROGRESS in any record unless the use of such record is restricted as if the record were itself a copy of WAR PROGRESS.
- (4) To give prior written notice of any change of address.
- (5) On written request, or before separation from the Government position which entitles them to receive WAR PROGRESS, to return all copies charged to their account.

WAR PROGRESS

~~Confidential~~

Disclosure Punishable Under Espionage Act

DECLASSIFIED
EO: 11652, Sec. 3(E) and 5(D) or (G)
Commerce Dept. Letter, 11-16-72
By RHP, Date

MAR 14 1973

Economic Data
Special Articles