

CONTINUED

WAR PROGRESS

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C. F.
War Production Board

**Cars Without Batteries?
Lead—Back on the Critical List
More Planes for the Two-Front War**

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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.

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Will Cars Have Batteries?

Short lead supply may mean 40% cut in metal available for civilian batteries. Productive capacity now barely adequate for minimum needs—deficit may put cars off road.

THE NEW YEAR brings the prospect of a new home-front shortage: a sizable cut in storage-battery production may drive cars off the road in large numbers in 1945. A rationing system, like the one now in effect for tires, may be called for to prevent crippling of transportation.

Main cause of the trouble is the failure of the lead supply to keep pace with wartime demands (page 4). With the estimated 1945 supply 15% below requirements, a sharp curtailment of lead consumption for all nonmilitary uses is inevitable. The distribution system now being devised is expected to cut the lead available for civilian batteries by 40%—from the 224,000 tons used in 1944 to about 135,000 in the new year. Even with rationing to protect the most important needs, a cut of this magnitude can cause serious disruption of transportation facilities.

ROCK BOTTOM

Home-front battery requirements have been rising during the war years because of replacement needs in aging motor equipment. Estimated requirements for 1945 are 19,000,000 units. According to the Office of Defense Transportation, this is the minimum necessary supply level, below which a deficit of replacement batteries will force cars, trucks, and busses out of service on a one-to-one ratio. Present productive capacity is barely adequate to meet this require-

ment. There is no significant reserve; storage batteries can't be stockpiled. Thus, if ODT's estimate is correct, the projected cut will put vehicles out of operation at a rate of several hundred thousand a month.

The civilian battery industry must take the whole cut; curtailment of military production is out of the question. In fact, military needs have been rising so sharply that they will not be met during the greater part of 1945. Armed forces requirements for 1945 total about 4,000,000 storage batteries of all types—nearly 1,000,000 more than in 1944. Air Force demands have dropped, Navy's have remained about level, but Army's have jumped more than 50%, largely because of replacement needs in the field. No comparable increase has occurred in productive capacity for military-type batteries. Of the 260,000 batteries per month required by the Army in 1945, probably not more than 160,000 can be produced in facilities available for the next six months. Of the 1,577,000 batteries required by Army Ordnance before June 30, it has been impossible to place orders for around 167,000. Delivery promises on those contracted for are not being kept, so the deficit is growing.

HARD TO CHANGE

The only bright spot in the whole picture is the small gain that military production will make as a result of the civilian loss. Some military-type batteries can be produced in the facilities left idle by the cut in civilian lead supply—but not immediately, and not in quantities that will make up more

than a fraction of the military deficit. The change-over is not easily or quickly made. Military batteries must be more durable than civilian, and their construction is far more difficult technically. They require more time, more labor, and more factory floor space. They must have hard-rubber containers, for instance; the plastic composition used in civilian batteries will not stand up in the field. Special equipment must be installed for these containers, as well as for plate forming, dry charging, etc. On the average, their dollar value is about three times that of civilian batteries, and it is probable that their relative cost in time, manpower, and materials is about the same.

PICKING THE PLANTS

In a survey of the industry, Army and WPB's Automotive Division are now choosing the plants where this conversion job can be made worth while—plants with the necessary facilities and equipment, the engineering and technical resources, the space, and the manpower. A secondary advantage gained by putting temporary military production in civilian plants will be the retention of trained workers in places where they will be badly needed as soon as more

lead becomes available for civilian battery production.

One conversion job has been definitely decided upon. Special equipment will be installed in the Rock Island container plant of the National Battery Company (at a cost to the government of \$169,000), which will fit it to produce 800,000 hard-rubber containers a year. This project had been previously turned down by the local manpower committee because of the increased labor need (100 men and 20 women), but it is now considered essential.

NEW FACILITIES

At the same time, plans are going ahead to provide more military battery facilities. One large manufacturer has agreed to spend \$2,100,000 on a new plant with a capacity of 1,000,000 military-type batteries a year (the Army to supply special equipment worth \$125,000). Plans have been drawn up, some of the machinery orders placed, and the plant could be in operation within four to six months. As yet, however, no site has been agreed upon. The company wants to locate the plant close to postwar markets (storage batteries are awkward and expensive to ship), but the 600 to 700 workers it would employ make it difficult to place at this time in labor-starved industrial areas. Other projects are being planned for areas where the manpower shortage is not so acute, and it may well be that these are the ones that eventually will come through.

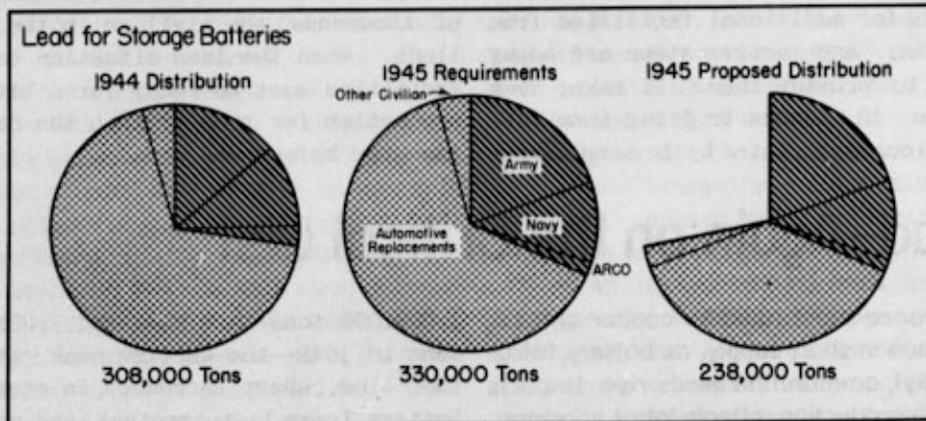
In general, the labor shortage has been the major obstacle in the way of provision of additional battery facilities. From both the production and the transportation points of view it is desirable that such additional facilities—whether in new plants or in expansions of present plants—be centrally located. But it is in these desirable

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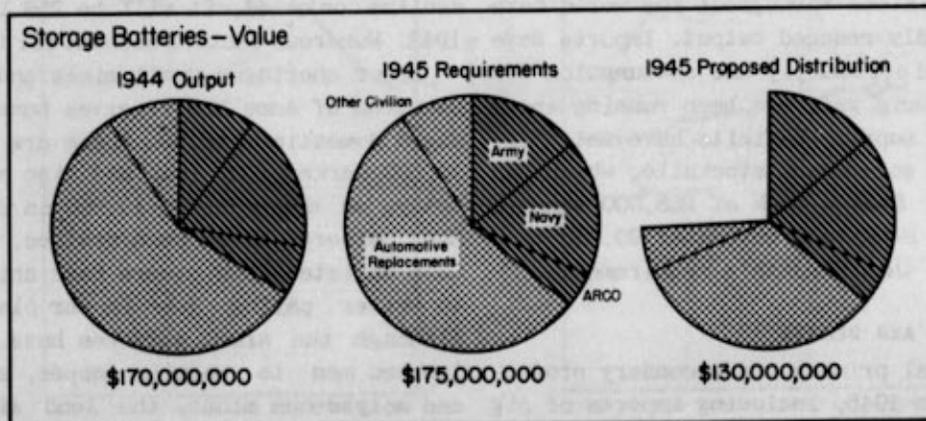
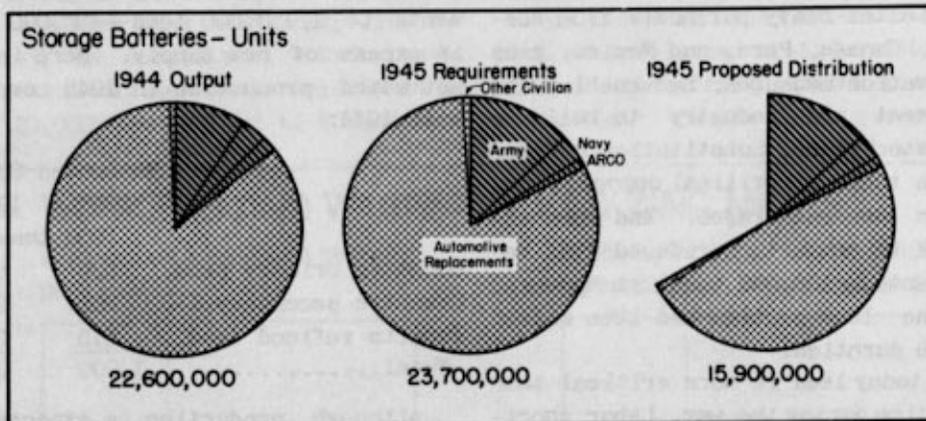
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SQUEEZE ON STORAGE BATTERIES

1. Because the supply of lead for civilian storage batteries will be down 40% —



2. Production of civilian batteries must be cut sharply if military demands are met.



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locations that labor is tight, and it has been difficult to justify the increased use of labor for batteries.

However, there can be no question of the need for additional facilities from here on, and active steps are being taken to provide them. It takes from six to 12 months to bring them into operation. Aggravated by the lead short-

age, the storage-battery deficits—both military and civilian—will have reached a dangerous size by that time: the military deficit will be in the hundreds of thousands, the civilian in the millions. When the lead situation eases, facilities must be ready for a battery production far greater than the nation has ever before achieved.

Lead—Again on the Critical List

Metal, once substituted for copper and tin, is now in short supply, as battery, tetraethyl, ammunition needs rise. Imports fall; production reflects labor shortage.

LEAD was taken off the critical list in 1943 after heavy purchases from Australia, Canada, Peru, and Mexico, plus conservation measures, had enabled the government and industry to build up large stockpiles. Substitution of lead for the then more critical copper, zinc, and tin was encouraged. And when the cutback in ammunition reduced 1944 requirements by 108,000 tons, it appeared that the lead problem had been solved for the duration.

Yet today lead is more critical than at any time during the war. Labor shortages in mines throughout the world have seriously reduced output. Imports have dropped off sharply and consumption for more than a year has been running ahead of new supply. Deficits have eaten into the government stockpile, which has shrunk from a peak of 265,000 tons in March, 1943, to an estimated 90,000 tons—less than a month's requirements.

SUPPLY AND DEMAND

Total primary and secondary production in 1945, including imports of pig lead, ores, concentrates, etc., is estimated at 970,000 tons, as against

1,009,000 tons this year and 1,285,000 tons in 1942—the wartime peak. At the same time, sharp increases in storage-battery (page 1), tetraethyl, and small-arms ammunition programs and export needs have boosted next year's requirements to 1,150,000 tons—180,000 tons in excess of new supply. Here is how estimated production in 1945 compares with 1944:

Source	Estimated Supply	
	1944	1945
	(000 tons)	
Domestic primary prod.	529	500
Domestic secondary....	265	260
Imports refined lead..	215	210
Total.....	1,009	970

Although production is expected to decline only 4%, it will be 25% below 1942. Numerous factors account for this:

Labor shortages at all mines and exhaustion of some ore reserves have reduced domestic output. There are only 14,600 workers in lead and zinc mines today, as compared to 19,900 in 1942. Many miners have been drafted, some have enlisted, and others have shifted to better paying jobs in war plants. Although the armed services have furloughed men to work in copper, zinc, and molybdenum mines, the lead situation heretofore hasn't warranted similar action.

Imports have dropped sharply—from 370,000 tons in 1942 to 210,000 tons. During 1942, Australia and Canada together shipped 150,000 tons of pig lead to this country. In 1943 they sent only 10,000 tons; since then, none. Their export contracts with the U.S. have expired, and with lead mining reduced sharply because of labor shortages, all of their available supply is going to the United Kingdom, where lead is also in short supply. The United States must now depend on Mexico and Peru for imports of pig lead. Mexican production, already reduced because of a shortage of railway equipment and a serious strike in the smelting and refining industry, was further curtailed by heavy rains and floods in September. Receipts from Peru have been less than previously estimated, as a result of a decision by the Combined Raw Materials Board to ship 20,000 tons of lead to Soviet Rus-

sia, much of which has come from American-owned Peruvian stocks.

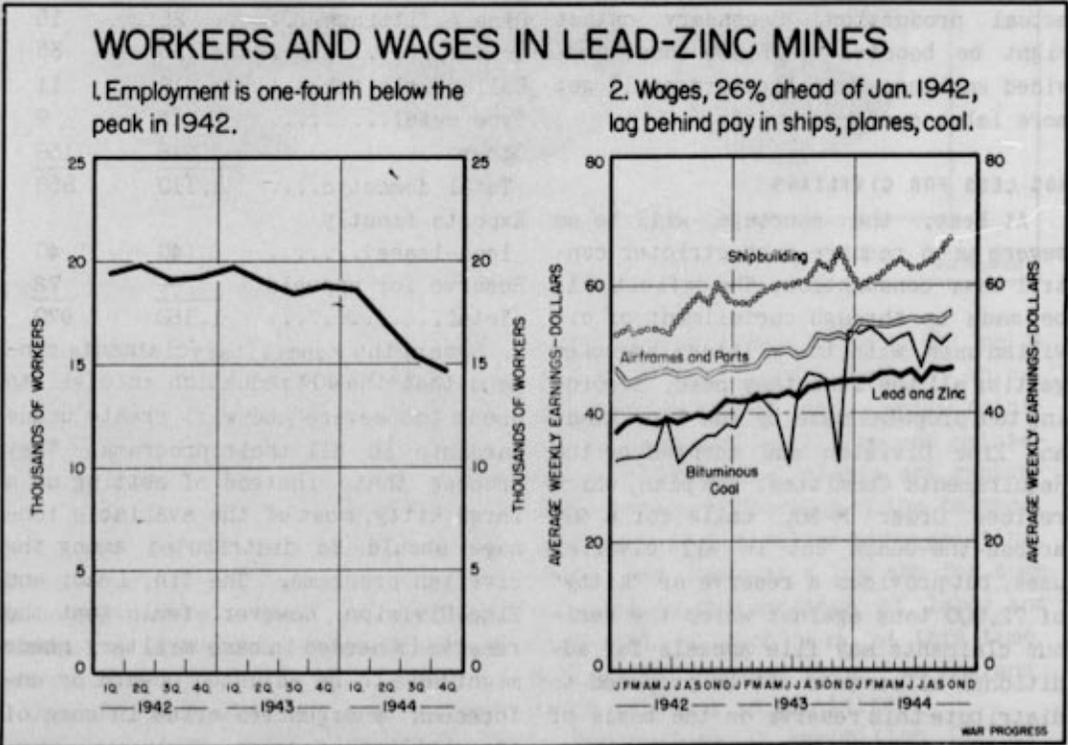
Secondary lead production from scrap (which accounts for about two-thirds as much as domestic mines) has been tapering off because the supply of scrap has been declining. A relatively large percentage of lead consumed in the U.S., other than for paint pigment, ammunition, and tetraethyl lead fluid, is salvaged through scrap collectors and secondary smelters. However, purchases of scrap by secondary smelters have been greatly curtailed because of labor shortages and higher collection costs all along the line, while prices have remained fixed. Little of the lead shipped abroad in war materials returns as junk.

Furthermore, the substitution of lead to save other critical metals increased the drain on the government stockpile.

WORKERS AND WAGES IN LEAD-ZINC MINES

1. Employment is one-fourth below the peak in 1942.

2. Wages, 26% ahead of Jan. 1942, lag behind pay in ships, planes, coal.



Facilities are no problem. Smelting and refining capacity is sufficient to process approximately double the present output. The difficulty is manpower. In an effort to solve this problem the War Production Board last week requested all lead producers to file requisitions for additional labor with their local United States Employment Service offices. Further, regional WPB directors and chairmen of Production Urgency Committees in all areas in which lead is produced have been asked to assign suitable urgency ratings as a means of assisting mines, mills, and refineries and smelters, both primary and secondary, to obtain more workers.

However, little hope is held out for any substantial increase in production. Even if 3,000 additional miners could be obtained, the most they could produce would be another 40,000 tons, because a large proportion of them would be engaged in developmental work instead of actual production. Secondary output might be boosted by 25,000 tons, provided smelters and collectors could get more labor and truck tires.

40% LESS FOR CIVILIANS

At best, the shortage will be so severe as to require much stricter control over consumption. The deficit will be made up through curtailment of civilian uses, with the military agencies getting all the lead they need, according to a proposal made by the Tin, Lead, and Zinc Division and adopted by the Requirements Committee. The plan, which revises Order M-38, calls for a 40% across-the-board cut in all civilian uses, but provides a reserve or "kitty" of 72,000 tons against which the various claimants may file appeals for additional allotments. It is proposed to distribute this reserve on the basis of relative urgency.

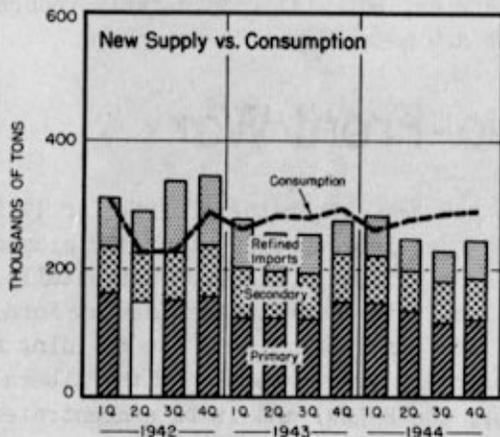
Under this allocation plan, there would be no cut in the amount of lead going into ammunition—a strictly military item—nor into solder or bearing-metal uses. There will be comparatively slight reductions in cable covering and tetraethyl; in both cases most of this lead goes directly to military uses. Storage batteries, by far the largest users of lead, would take the biggest cut—92,000 tons—but all of this would be borne by nonmilitary types (page 1). Here is how the proposed distribution compares with 1945 requirements by various uses:

Use	1945	Proposed
	Req.	Distrib.
	(000 tons)	
Storage batteries..	330	238
Cable covering.....	140	126
Chemicals, inc. red & white lead.....	175	102
Ammunition.....	74	74
Tetraethyl.....	80	90
Pipe & fittings....	25	15
Solder.....	35	35
Collapsible tubes..	18	11
Type metal.....	15	9
Other.....	218	158
Total domestic....	1,110	858
Exports (mostly lend-lease).....	40	40
Reserve for appeals	—	72
Total.....	1,150	970

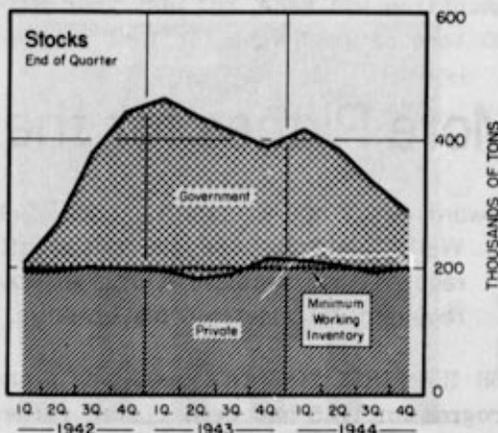
Some of the nonmilitary claimants contend that the 40% reduction in civilian use is too severe and will create undue hardship in all their programs. They propose that, instead of setting up a large kitty, most of the available tonnage should be distributed among the civilian programs. The Tin, Lead, and Zinc Division, however, feels that the reserve is needed in case military needs might have to be adjusted upward or unforeseen emergencies arise in some of the civilian programs.

LEAD - BACK ON THE CRITICAL LIST

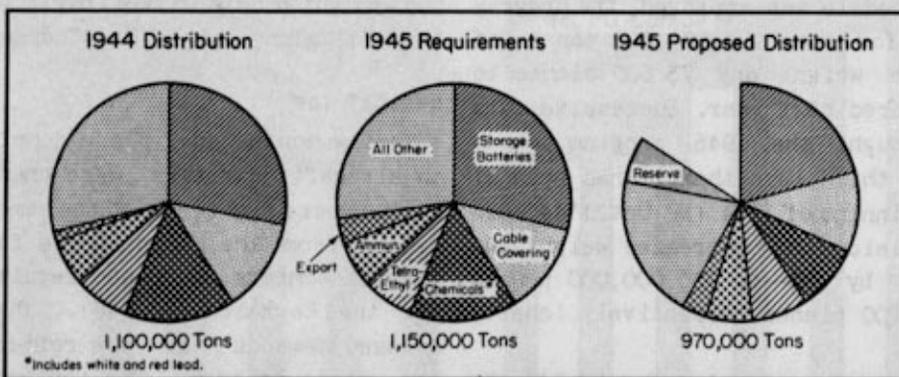
1. Consumption has been running ahead of new supply:



2. And as a result, stocks are down to the lowest level in two years:



3. Here is where the lead goes:



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Next to storage batteries, the largest single use of lead is for cable covering. Approximately 80% of this goes to the Army, Navy, Maritime Commission, and lend-lease. The remainder, which will be cut 40%, is divided between power cable for new war facilities and maintenance and replacements in power and communication systems. Efforts will be made to substitute other materials wherever possible.

The 40% reduction in lead pigment output will mean greater scarcity of

paint. More than one-third of the paint made with lead is now used for ships, tanks, guns, trucks, etc., while painting of new war facilities and maintenance of industrial plants are responsible for a major portion of the balance. This means that civilian house painting, which has been at a low ebb for some time due to the shortage of labor and high cost of such work at this time, will suffer another blow. In England, house painting is prohibited.

Manufacture of ammunition for ci-

vilians will practically cease, but the War Department will supply some ammunition for the most essential civilian needs. For several years no civilian ammunition was made, but last year 20,000 tons of lead went for that purpose

—half the normal prewar annual output.

The cut in type metal will not affect existing stocks of newspapers, magazines, books, and other printing industries, but will considerably reduce the new metal available to them.

More Planes for the Two-Front War

Upward revision of 1945 program adds 3% to W-12. Liberator schedule, consistently reduced earlier, is raised 400 planes. Navy requirements boost Hellcats, Corsairs.

FOR THE FIRST TIME in a year, the plane program for 1945 has been lifted rather than lowered.

Back in October, when the original W-12 schedule was approved, the program called for some 904,000,000 pounds of airframe weight and 75,600 planes to be produced next year. Successive cuts had brought the 1945 program down to about a third less than it had been at the beginning of 1944 (WP-Oct21'44, p8). Now revisions have increased weight and numbers by 3%—to 935,000,000 pounds and 78,200 planes respectively (chart, page 9).

The rise is accounted for by (1) the continued two-front war; (2) a change in Navy requirements; and (3) a stepup in certain schedules to place them more in line with demand.

LIBERATOR UPSWING

Consider the B-24 Liberator. During the first 10 months of 1944, it was one of the most consistently reduced models in the 1945 program. Output was to be tapered as squadrons shifted from the Liberator to the E-29 Superfortress. But because of the lag in Superfort output, the shift was thrown out of gear (WP-Dec16'44, p4). On top of that, there was no letup in the air war over Europe.

So now the Liberator program for 1945 has been increased by about 400 planes—from 3,201 to 3,599. Incidentally, all of this rise takes place at Ford, Willow Run, which will be building a radically revised version of the Liberator, the B-24N, and it is concentrated in the first four months of the year. Similarly, the continued war in Europe has brought boosts in two Army fighters: the P-51 Mustang and the P-47 Thunderbolt.

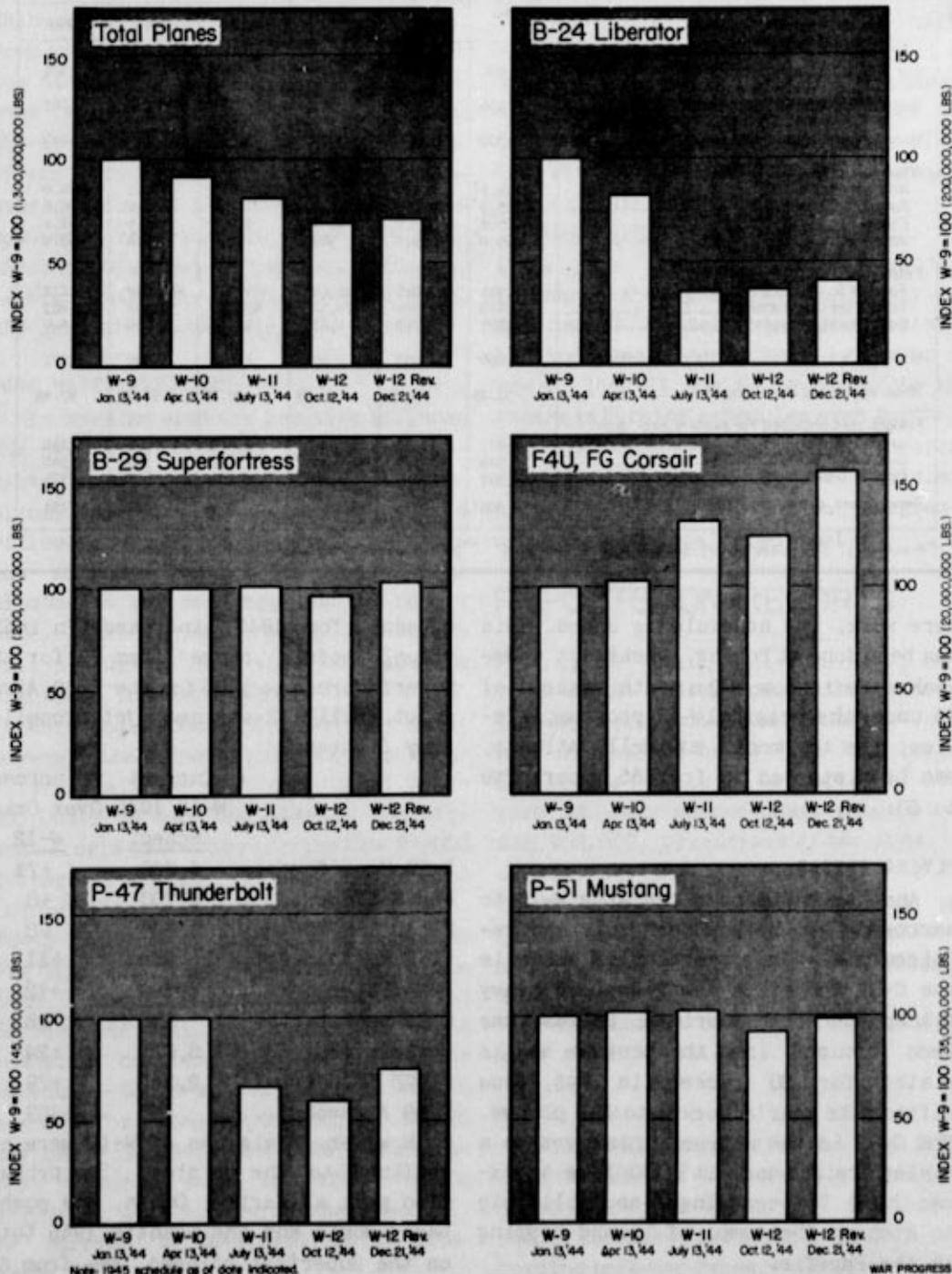
HELLCAT TOP

A few months ago, plane complements on aircraft carriers were changed to include more fighters. At the same time, demand from the Marine Corps for more fighter-bombers increased requirements for the Corsair (FG, F4U). These increased demands are now reflected in the plane program. The top rate for Grumman's F6F Hellcat for next year was previously 500 a month and the low point 100; now the rates are 525 and 150, respectively. Incidentally, this wouldn't represent a new high month for Grumman; last October, acceptances ran to 550 Hellcats. But the F4U Corsair at Chance Vought, Stratford, is actually scheduled for a record peak level of 300 planes a month beginning with August, 1945.

Although output of E-29 Superfortresses was ahead of schedule last month, the Army wants all the E-29s it can get (WP-Dec16'44, p4). Whenever it appears that a E-29 assembly plant can take on

FIRST INCREASE IN 1945 PLANE SCHEDULE

During 1944, the '45 program was cut steadily. Latest revisions of the current schedule boost next year's goal 3% in airframe weight. Here are some examples:



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KEY STATISTICS OF THE WEEK

	Latest Week	Previous Week	Month Ago	Same Week		
				1943	1942	1941
War Program—checks paid (millions of dollars)...	1,598	1,510	1,838	1,205	1,176	401
War bond sales—E, F, G (millions of dollars).....	536	531	235	124	216	165
Money in circulation (millions of dollars).....	25,335	25,280	24,997	20,428	15,407	11,160
Wholesale prices (1926=100)						
All commodities.....	104.5 ^P	104.4	104.2	102.9	100.7	94.0
Farm products.....	125.9 ^P	125.6	124.6	122.0	115.2	96.0
Foods.....	105.8	105.7	105.1	105.7	104.6	91.6
All other.....	99.0 ^P	99.0	96.9	97.8	96.2	93.9
Petroleum (OOObarrels)						
Total U. S. stocks ^{**}	418,915	419,015	425,023	427,411	441,352	493,112 [†]
Total East Coast stocks ^{**}	69,493	71,386	74,518	65,263	55,361	92,483
East Coast receipts ^{**}	1,797	1,769	1,878	1,543	1,150	N.A.
Bituminous coal production (OOO short tons).....	1,668	1,938	2,015	2,035	1,980	1,871
Steel operations (% of capacity).....	92.1%	96.3%	96.0%	93.0%	96.1%	95.4%
Freight cars unloaded for exports, excl. grain ^{**}						
Atlantic Coast ports.....	3,277	3,312	3,064	2,592	926	1,140
Gulf Coast ports.....	524	578	469	457	343	340
Pacific Coast ports.....	1,667	1,810	1,924	1,169	805	175
Department store sales (1935-39=100)..... [†]	368 ^P	376	303	274	222	191

^PPreliminary ^{**}Excludes military-owned stocks ^EEstimated ^{**}Daily Average ^{N.A.}Not Available [†]Unadjusted

more work, its schedule is upped. This has been done at Boeing, Wichita, whose peak rate is now 100 a month instead of 75 under the original W-12 program; likewise, the top month at Bell, Atlanta, has been stepped up from 55 Superforts to 60.

FLYING BOXCAR

Another instance of revising W-12 to narrow the gap between schedule and requirements for a particular plane is the C-82 Packet, a new 2-engined heavy transport. North American, Dallas, has been brought into the program and is slated for 20 Packets in 1945, thus lifting the year's docket to 108 planes. The C-82 is the nearest thing yet to a flying freight car—it looks like a boxcar hung between wings—and will help to step up the tempo of island-hopping in the Pacific.

As compared with the original W-12

schedule for 1945, increases in individual models range from 7% for the Superfortress to 109% for the P-59 Airacomet, Bell's 2-engined jet-propelled Army fighter:

Current % Increase
W-12 1945 Over Orig.

	Sched.	W-12
B-29 Superfort...	4,360	+7%
F6F Hellcat.....	4,700	+8
P-51D & R Mustang	6,549	+8
PV-2 Harpoon.....	954	+11
B-24 Liberator...	3,599	+12
C-82 Packet.....	108	+23
Corsair (FG, F4U)	5,029	+24
P-47D Thunderbolt	2,342	+79
P-59 Airacomet...	23	+109

However, revisions of W-12 were not confined to the up side. The production peak at Martin, Omaha, was pushed back a month and the plant's 1945 total on the Superfort clipped 4%—from 640 to 613. Similarly, goals for several

other urgent models were reduced to more realistic levels. At Consolidated Vultee, San Diego, the PB4Y patrol bomber—Navy version of the Liberator—was lowered 13% to 780 planes; at Douglas, Chicago, the C-54 Skymaster was brought down an equal percentage to 747 planes; and at Curtiss, Columbus, the SC-1 Seahawk reconnaissance plane was slashed 35% to 588. Even in Navy fighters, one of the groups showing a greater-than-average rise in airframe weight—4%—a downward revision was made: the 2-engined F7F Tigercat at Grumman, Bethpage, is now listed for 675 planes next year, 23% less than under original W-12.

MORE MATERIALS, TOO

In keeping with the increase in planes the new program means higher requirements for materials: steel, copper, aluminum. The Aircraft Resources Control Office—claimant agency for aircraft—has already been granted supplemental allotments for castings and for copper wire, sheet, rod, tubing, and brass-mill products. This will increase the tightness in these items.

More horsepower is involved also. However, the scheduled increase is relatively small, only 2% (from about 311,800,000hp to 318,100,000hp). The biggest single increase is in the new R-2800 1-stage C engine. Already being used in planes such as the P-47M Thunderbolt, P-51 Mariner, P-61 Black Widow, and F7F Tigercat, it is now slated for the A-26 Invader, C-46 Commando, and PV-2 Harpoon, as well. Under original WE-12—engine complement to the W-12 plane schedule—the R-2800 1-stage C was to account for some 32,000,000hp (15,200 engines) in 1945; now this figure has been jumped 60% to 51,100,000hp (24,300 engines). And the entire increase will be carried by Chevrolet, North Tonawanda, N.Y.

By contrast, the increase in plane

schedules doesn't call for an expansion of the labor force at airframe plants—efficiency will be increasing at a more rapid rate than schedules. But the new program will reduce the expected decline in work rolls next year. Originally, manpower requirements were expected to drop 13% between now and next September, or from 721,000 to 632,000. Now the decline is expected to be 9%, thus placing stated labor requirements in airframe plants at about 660,000.

These aren't the last revisions for 1945. The plane program is subject to change at any time—as military demands shift, as design problems dictate, as lend-lease requirements move up or down. Thus it may be necessary to increase Liberator schedules even further, and another revision in Superfortress schedules is in prospect. The plane program—like every other war program—can never be considered "set."

REPORTS ON REPORTS

MORE PER MAN

Although employment in the domestic laundry equipment industry during October dropped 7% below the July level, deliveries for the third quarter of 1944 rose 2% over second-quarter output to \$32,900,000. *Operations of the Domestic Laundry Equipment Industry During the Third Quarter 1944* (confidential; pp. 6) states that airplane parts made up almost 40% of the shipments; ammunition, 35%.

(War Production Board, Bureau of Program and Statistics)

DAIRY DATA

Fluid-milk production for the first nine months of this year totaled 93,037,000,000 pounds—only 0.1% behind output for the same period in 1943, according to *Dairy Products, November* (confidential; pp. 31). However, consump-

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SELECTED MONTHLY STATISTICS

Federal Finance—Labor Force—Labor Turnover

	Latest Month ^{*P}	Preceding Month	2 Months Ago	Some Month			
				1943	1942	1941	1939
FEDERAL FINANCE (GENERAL FUND)							
Expenditures—Total (million dollars)							
War	7,828	8,024	7,930	7,839	6,363	1,858	648
Nonwar	7,401	7,479	6,998	7,341	6,042	1,448	127
Revenues—Total	427	545	932	296	321	410	321
Income Taxes	2,240	2,001	3,926	2,099	601	564	364
Other revenues	1,500	1,240	3,174	1,459	199	66	34
War bond sales	740	761	752	640	402	496	350
"E"	1,023	699	692	798	735	234	N.A.
"F" and "G"	807	599	591	665	542	110	
War bond redemptions	216	96	101	133	193	124	
"E"	376	395	277	164	37	3	
"F" and "G"	354	373	295	150	32	3	
Net debt (billion dollars)	22	22	22	14	5	-	N.A.
	209.2	200.3	194.4	151.2	93.0	52.7	39.1
LABOR FORCE—TOTAL (millions)							
Employment	52.2	52.9	53.0	53.1	54.6	54.0	N.A.
Male	51.5	52.2	52.3	52.2	53.2	50.6	
Female	33.7	34.1	34.2	34.8	37.9	37.6	
Unemployment	17.8	18.1	18.1	17.4	15.2	13.0	
Male	.7	.6	.8	.9	1.4	3.4	
Female	.4	.3	.4	.5	.9	2.3	
	.3	.3	.4	.4	.5	1.1	N.A.
LABOR TURNOVER IN MFG. INDUSTRIES (rate per hundred employees)							
All manufacturing							
Separation Rate—Total							
Quits	6.4	7.6	7.8	7.0	7.9	4.0	2.9
Military	5.0	6.1	6.2	5.2	4.7	2.1	.9
Accession Rate—Total	.3	.2	.3	.6	1.7	.2	N.A.
Aircraft	6.0	6.1	6.3	7.2	8.7	4.9	3.9
Separation Rate—Total							
Quits	6.2	8.3	8.5	6.4	8.0	10.6	2.7
Military	4.8	6.0	6.1	4.9	4.4	2.7	1.0
Accession Rate—Total	.3	.4	.5	.7	2.8	.2	N.A.
Shipbuilding	4.9	4.8	4.9	7.6	11.7	10.6	11.8
Separation Rate—Total							
Quits	9.5	10.2	10.8	9.7	10.8	6.4	3.0
Military	6.4	7.0	6.9	6.3	5.4	2.7	1.0
Accession Rate—Total	.4	.4	.5	1.0	2.6	.2	N.A.
	8.3	7.9	8.1	9.3	12.6	14.6	4.8

* Federal Finance, Labor Force, November; Labor Turnover, October. ^P Preliminary. ^{N.A.} Not Available.

tion increased because of a growing population, and the quantity diverted into whole-milk manufactured dairy products dropped 6%.

(Department of Commerce, Bureau of Foreign and Domestic Commerce)

WORK GLOVES

Continuing a downward trend, average monthly output of work gloves through August, 1944, dropped 35% below the average production rate in 1941. *Work Gloves* (restricted; pp. 5) reports that

manpower is still the most acute problem facing the industry. However, some relief is expected to result from cancellations of military contracts in other industries, adjustments in price ceilings and wage scales.

(War Production Board, Bureau of Program and Statistics)

[This record is an attempt to select from the many documents coming to the attention of WAR PROGRESS those studies which would be of most interest to readers. The list is by no means comprehensive, and no attempt has been made to evaluate reports for accuracy. Whether reports are available depends on the policy of each individual agency.]

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