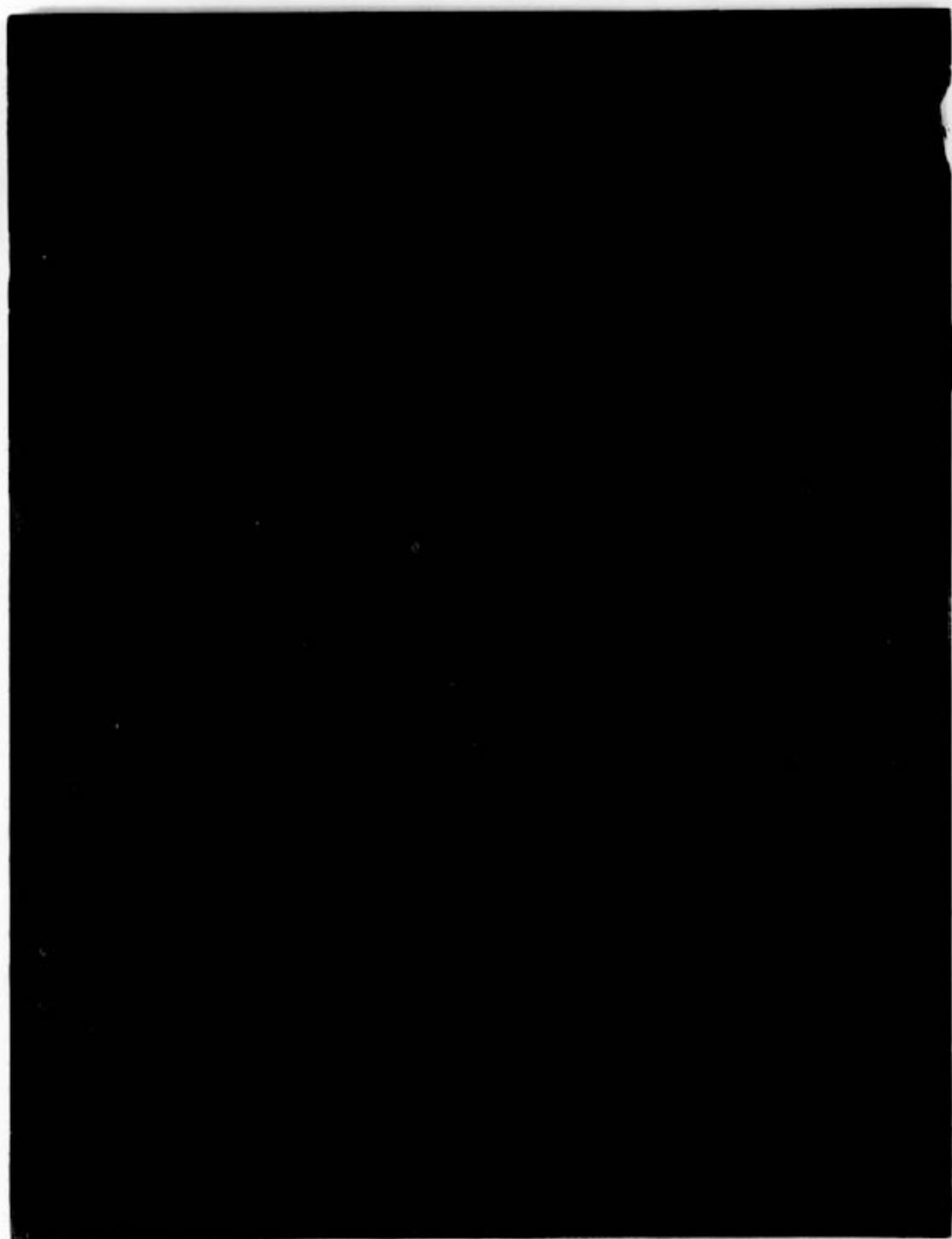


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Subject File  
Office of Production Management:  
Defense Progress: July 1941  
Box 146



# DEFENSE PROGRESS

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10. *Defense Index*



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ASSISTANT CHIEF & EDITOR

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## PRODUCTION OF AIRPLANES AND GUNS

*PRODUCTION OF DEFENSE EQUIPMENT - JUNE, 1941 (By telegraphic advice)*

*Significantly higher levels in the production of defense equipment were reached in June, 1941. These are shown by the indexes of monthly production rates of major types of equipment for the last three months and by the average production from July to December, 1940, given in the accompanying table. In spite of this marked increase, the monthly rates of defense production at the end of June were lagging considerably behind the scheduled rates of monthly production.*

*The index of major combat ship construction reached 35 in June as compared with the index of 31 in May and a scheduled June index of 45. The peak rate of 100 is scheduled to be reached in October, 1942. At the end of June, 13.5 percent of the required work on additional major combat ships for the two-ocean navy had been completed.*

*The combat vehicle production rate index increased from 25 in May to 34 in June; it did not attain the scheduled index of 49, mainly because production of personnel carriers was be-*

PRODUCTION RATE INDEXES		July-Dec 1940 Avge	April 1941	May 1941	June 1941	Peak Month
PER CENT						
	COMBAT SHIPS	19	30	31	35	100 Oct '42
	COMBAT VEHICLES	8	18	25	34	100 Oct '41
	AIRPLANES	14	34	31	35	100 Aug '42
	GUNS	16	37	36	38	100 Nov '41

hind expectations. The index of total accumulated production at the end of June amounted to 9 percent of total production requirements.

The production rate index for Army-type guns reached 38 compared with 36 in May, 37 in April, and the scheduled peak of 100 in November, 1941. The scheduled index of 50 for June was not reached because of low output of machine guns and all types of anti-aircraft guns (except the new 90 mm gun). Accumulated production of Army-type guns at the end of June amounted to 16 percent of total production requirements.

June production of military airplanes reached a new high, despite the strike at the Inglewood Plant of the North American Aviation Company. The production rate index for June, as shown in Chart 1, reached 34.7. The peak monthly production is 100 and is scheduled for August 1942.<sup>a</sup>

The June index represents a sizable advance over the index of 31.4 in May and the previous high of 33.9 in April. It should be noted, however, that OPM schedules called for a level of production in June which would have made the index 36.6, or about 1.9 points higher than was actually attained.

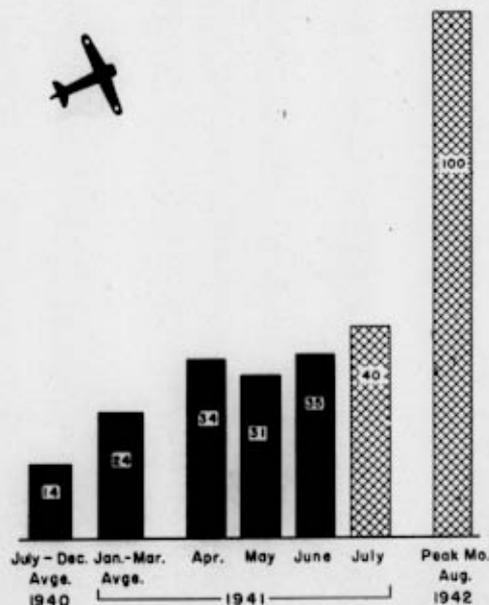
Production of heavy bombers and 1-engine-pursuit ships fell behind OPM schedules. Production of lighter types of bombers was ahead of schedule. Total production of all types

of training planes was about on schedule.

Present OPM schedules call for a July production rate index of 40.0, 5.3 points (or one-sixth) higher than actual production in June. Most of this increase is scheduled to occur in the production of 1-engine-pursuit ships and 2-engine bombers.

CHART 1 - MONTHLY PRODUCTION RATE - MILITARY AIRPLANES

INDEX NUMBERS

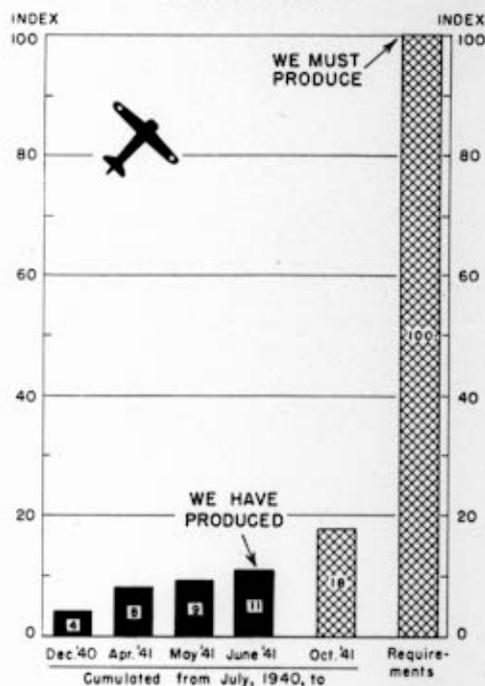


<sup>a</sup> Production rate and total production indexes for airplanes in May were presented in Issue 46, pages 2-3. The method of development of the indexes was presented in Issue 46, pages 5-6. Production rate and total production indexes for all Army-type guns combined for April were presented in Issue 42, pages 2-4, and Issue 43, page 6.

The index of total production of military airplanes at the end of June amounted to 10.7 percent of production requirements. This is 1.5 points higher than it was at the end of May and more than three times as large as it was at the end of December 1940.

Chart 2 shows the total production index as of last December and

CHART 2 - TOTAL PRODUCTION AIRPLANES



the past three months, and the scheduled position next October. The index is not expected to reach the "fifty-percent critical point" until August 1942.

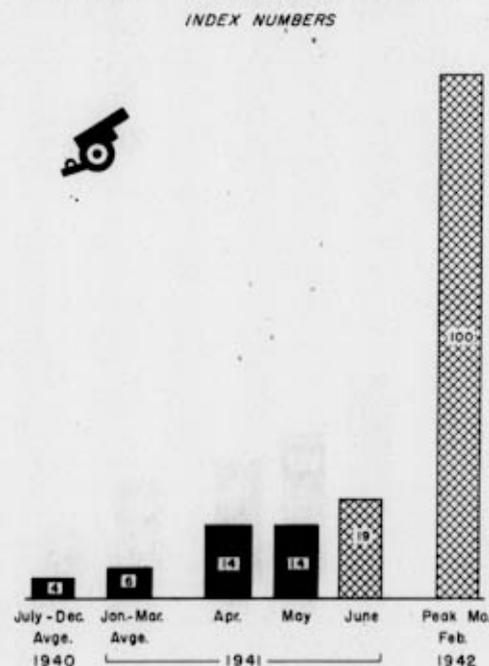
Army Type Guns. The monthly rate of production of Army-type guns more than doubled between the first six months of the program and the

end of May 1941. Within the next six months, before the end of 1941, the rate attained in May should be trebled, and production should be at the scheduled peak rate.

At the end of May, 14 percent of the total production requirements of Army-type guns had been filled. By October, accumulated production should amount to 36 percent of requirements.

Field Artillery. The index of the monthly rate of production of field artillery pieces in May was 14. This compares with the peak monthly rate of 100 which is scheduled to be reached in February 1942. As can be seen in Chart 3, May production represents more than a threefold in-

CHART 3 - MONTHLY PRODUCTION RATE - FIELD ARTILLERY



crease over the July-December average of 4 and was more than twice as high as the rate of 6 attained during the first quarter of 1941.

At the present time, the production rate index for field artillery is the lowest of any of the material production rate indexes presented. However, production is scheduled to be stepped up markedly by August, and the peak rate should be reached in February 1942. The scheduled increase in August will result from increased output of the new 105 mm howitzer as two new producers finish tooling up and commence production.

When the scheduled peak produc-

tion rate for field artillery is reached, production each month will be equal to almost 7 percent of estimated total production requirements.

As can be seen from the indexes on Chart 4, accumulated total production of field artillery at the end of May amounted to 5 percent of requirements. During this summer the total will be rapidly increased, and, by the end of October, the index should stand at 19. Another year must pass - May 1942 - before half of the production requirements are produced.

Antiaircraft Response. The monthly rate of production of anti-aircraft guns in May was twice as

CHART 4 - TOTAL PRODUCTION FIELD ARTILLERY

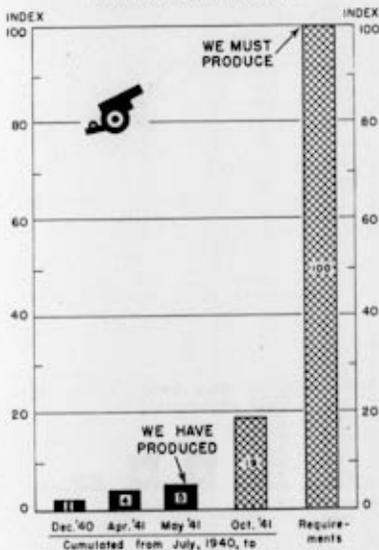


CHART 5 - MONTHLY PRODUCTION RATE - ANTI-AIRCRAFT WEAPONS



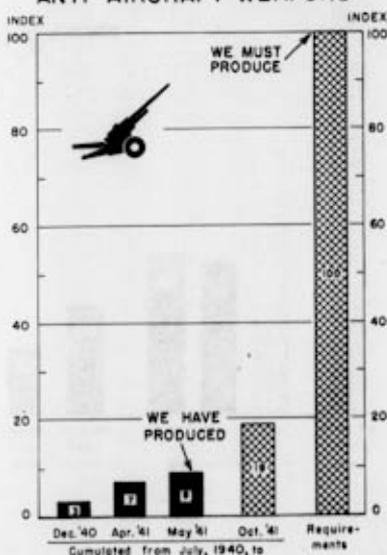
high as the rate for field artillery. This same relative superiority will be carried into June 1941. If anti-aircraft gun schedules are met, the production rate index will be at 40, as shown in Chart 5, compared with the expected peak rate of 100 in June 1942.

The anticipated June 1941 rate is over three and a half times the average rate from July to December 1940 and twice the average rate for the first quarter of 1941. This is mainly due to increased production of 90 mm guns and 50 cal. anti-aircraft machine guns. Production

rates for anti-aircraft weapons will not increase as rapidly as those for field artillery. In June 1942 monthly production will be equal to about 5 percent of total production requirements.

The index of total production of anti-aircraft guns at the end of May amounted to 9 compared with total production requirements as 100. This is almost twice as high as the index of 5 at the same time for field artillery. By the end of another five months (October 1941), the index of total accumulated production presented in Chart 6 should be more than doubled at 19. The so-called "fifty-percent critical point" for anti-aircraft weapons is not scheduled to be exceeded prior to June 1942.

CHART 6-TOTAL PRODUCTION ANTI-AIRCRAFT WEAPONS



Infantry Supporting Weapons. These guns, mainly machine guns, rifles, and light 37 mm cannon, present the easiest production problem of any type of gun. As the production rate indexes given in Chart 7 indicate, May production was 36 against a peak rate of 100 scheduled for October 1941. This is the highest of any of the production rate indexes presented and is double the rate which existed during the first six months of defense effort. It is also 10 points higher than the average of the first quarter of 1941. However, there was a decrease in production from April to May, mainly because of a drop in production of machine guns.

This index should reach half the peak rate during June, and should continue to increase rapidly until the peak in October. After

that time the present sub-machine gun program should be completed and scheduled production drops off rapidly. October production is now scheduled to amount to nearly 8 percent of total requirements. The general pattern of monthly production for infantry-supporting weapons is very similar to that for combat vehicles, except for the rapid decrease in monthly production of infantry weapons after the October peak.

As the index in Chart 8 shows, total accumulated production of these guns amounted to 19 percent of requirements at the end of May 1941, almost two and a half times total production at the end of December 1940. The 50-percent production point in this case will be reached in November of this year. This index is the highest of any of the indexes presented.

(See note on following page.)

CHART 7 - MONTHLY PRODUCTION RATE - INFANTRY SUPPORTING AND GROUND WEAPONS

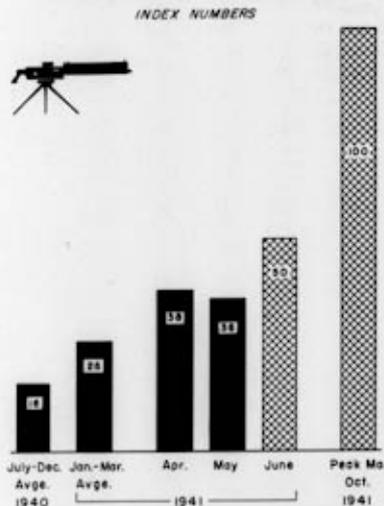
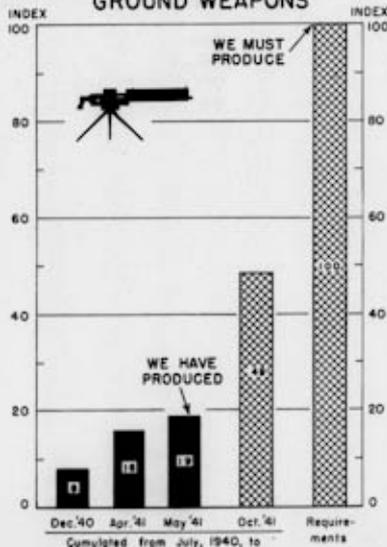


CHART 8 - TOTAL PRODUCTION INFANTRY SUPPORTING AND GROUND WEAPONS



Note: Data include production for the United States armed forces and for Great Britain and other governments. The weights and individual series used in deriving these three indexes are:

<u>Field Artillery</u>	<u>Weight</u>	<u>Infantry Supporting</u>	<u>Weight</u>
8" Gun	2,269	81 mm Mortar	16
8" Howitzer	925	60 mm Mortar	8
240 mm Howitzer	1,357	37 mm Anti-Tank Gun	77
155 mm Gun (new)	800	37 mm Tank Gun	33
155 mm Gun (mod.)	212	75 mm Tank Gun	264
155 mm Howitzer (mod.)	110	50 Cal. M.G.	94
105 mm Howitzer	1,018	30 Cal. M.G.	12
75 mm Gun (mod.)	82	.45 Cal. Sub. M.G.	12
75 mm Howitzer	308	Rifle, Garand	3

<u>Antiaircraft Weapons</u>	<u>Weight</u>
3" Gun	647
90 mm Gun	1,316
37 mm Gun	339
50 Cal. M.G.	98

## COMMODITY PRICES TODAY AND IN WORLD WAR I

**WHOLESALE COMMODITY PRICES** have shown an upturn on a wide front during the past two months. To prevent disastrous inflation and interference with an increasing flow of defense materiel, a comprehensive coordinated program of price control is urgently needed.

Two months ago, wholesale commodity prices started an upturn on a wide front. This is in marked contrast to the general stability of prices since the beginning of the European War, with the exception of the initial flurry at that time.

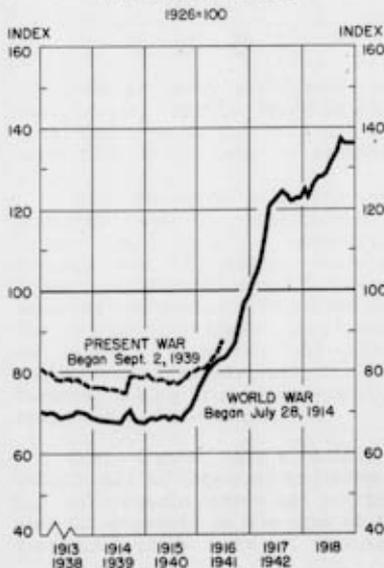
Although the price level is still only slightly above that in August, 1939, a comparison of the present situation with that of World War I leads to a belief that the United States is now entering a critical period with respect to price inflation. It was more than a year after the start of World War I before the general price level showed any tendency to rise, as can be seen from the all commodities wholesale price index shown in Chart 1. Even for a considerable part of the second year advances were, on the average, still moderate. The major rise did not come until the War had passed its twenty-second month.

The present War found the United States with a relatively larger unemployed labor force than in 1914. Moreover, the pressure upon productive capacity has this time been somewhat slower in developing. But now the pressure is being felt in many fields.

Though the present course of prices is in many details different from that of the last War, there is considerable similarity and parallelism. The latest upturn, which

started twenty months after the beginning of the War, may well develop into a movement corresponding to that which in the last War was initiated in the latter part of 1915. During the first year of the present War the movements of the general level of prices of selected groups were similar to those in World War I in degree as well as direction. In the subsequent nine months, the direction in both cases was upward, although the rise during the present

CHART 1 - WHOLESALE PRICES  
ALL COMMODITIES



War has not been as great as in World War I.

Marked stability is displayed by the curve in Chart 2 showing the prices of metals and metal products. This group, which is to some extent representative of durable goods in general, is usually characterized by price stability especially insofar as quoted prices are concerned. It is also characterized by wide cyclical fluctuations in the volume of production.

At the start of the present War the durable goods industries were still at a low rate of production. On the other hand, the prices of their commodities, as recorded in the Bureau of Labor Statistics Index, had not dropped during the de-

CHART 2 - WHOLESALE PRICES METALS  
1926=100

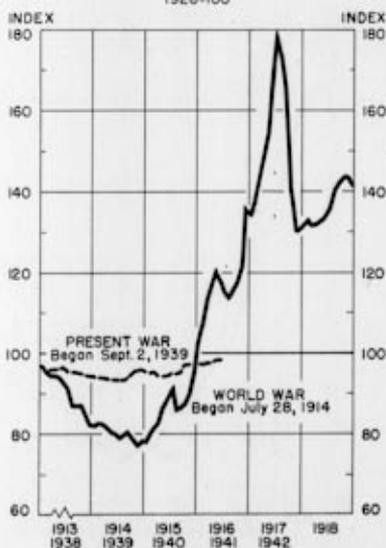
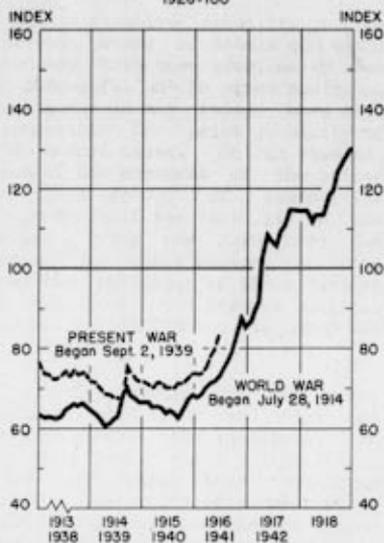


CHART 3 - WHOLESALE PRICES FOODS  
1926=100



pression as much as those of consumer goods, such as foods and fabrics, and were on the whole not much lower than in the late twenties.

With the unused plant and labor capacity and the maintenance of prices of certain commodities through the depression, there existed considerable scope for expansion of production without the need for a rise in prices. As pressure on capacity increases and higher costs become significant, the factors making for price stability will tend to be weakened.

Coupled with this situation is undoubtedly an increased understanding of economic forces and willingness to cooperate on the part of industrial leaders. It is, however,

doubtful if business understanding and cooperation alone can long withstand the pressures of rising costs and increasing scarcities of labor, materials, and industrial capacity. The result of these pressures is already apparent in the record for the past two months.

Unlike metal products and various other durable goods the movement of prices for foods and textiles have paralleled very closely the lines established in World War I (See Charts 3 and 4). For certain food products, such as dairy products and meats, the rise in prices has developed more rapidly during the present War than during 1914, 1915, and 1916. Likewise, in the textile group the prices of cotton goods have already anticipated the

rise followed by such prices in the last War.

The relative stability of the current prices of metals and metal products have been ascribed by some to successful public price controls. Such controls may indeed have been responsible for price stability of the metals index. But an examination of the movement of the prices of other groups of commodities suggests that the stability in the metals group may have been due largely to other factors and that, when the influence of these factors is exhausted, the present controls may not be sufficient to hold the prices down.

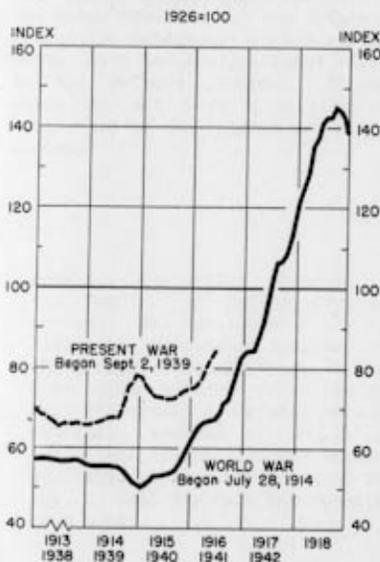
So far, there has been more stability in brick and tile and cement prices than in metals. On the other hand, while the prices of brick and cement have been highly stable, the price of lumber is now more than twenty-five percent higher than at the start of the War.

To prevent the disasters of inflation and to insure at the same time an increasing flow of defense materiel and supplies, a comprehensive approach to the control of prices is urgently needed.

This calls for a coordinated program integrating all policies affecting prices, such as priorities, labor policy, fiscal policy, agricultural policy and anti-trust policy, as well as direct price controls and credit policy.

\*Based on data provided by the United States Bureau of Labor Statistics.

CHART 4 - WHOLESALE PRICES  
TEXTILES



## INDUSTRIAL DISPUTES IN DEFENSE INDUSTRIES

### JUNE, 1941

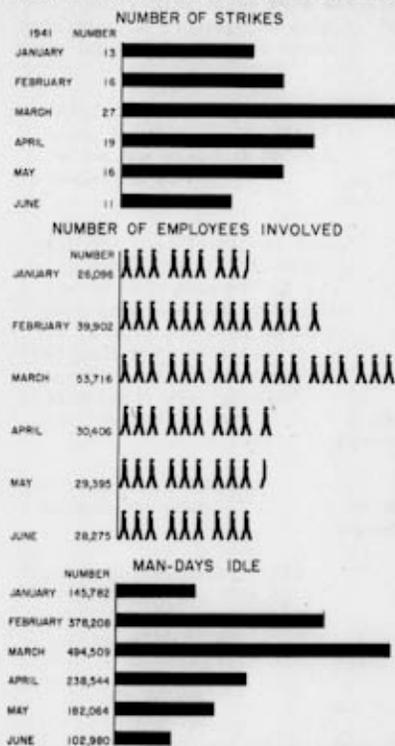
*JUNE STRIKES OF MAJOR IMPORTANCE to the defense program and the resulting man-days of idleness were lower than for any previous month or 1941*

Strikes of serious concern for the national defense program resulted in less idleness in June 1941 than in any previous month this year.

There were 11 strikes of importance to the defense program in effect in June 1941. The number of employees involved in these disputes was 28,275, and the estimated total man-days of idleness caused by these strikes was 102,980. These figures are based on a recent analysis by the Labor Division of the Office of Production Management of the strikes which have had a significant effect on the defense program. Strikes which do not have a critical relationship to the program are not included.<sup>a</sup>

<sup>a</sup> Previous statistics reported in the Summary of Defense Progress included all strikes with any relation to the defense program. In the present article those strikes have been omitted which are not very important to defense because alternate sources of supply or sufficient inventories are readily available, or because no final delay in delivery date has resulted from them.

#### LABOR DISPUTES IN DEFENSE INDUSTRIES



The accompanying graph shows comparable statistics on important defense strikes during the first six months of 1941. The April figures do not include the strike of 400,000 coal miners in the Appalachian Area. For most of its duration this strike was not significant for the defense program. The trends of the data which are in contrast to the trend of the expanding defense program can be attributed both to the increasing cooperation of management and labor in the defense program and to the impressive record of the National Defense Mediation Board in preventing stoppages of important defense work. To July 1, the Board had handled 44 cases. In 43 of these cases, involving approximately 700,000 workers, the employees either have returned to work or have postponed strike action at the request of the Board.

During the month of June 1941, the Labor Division of the Office of Production Management followed 100 labor disputes involving approximately 265,000 employees. Sixty-two of these disputes, involving approximately 183,700, were settled during the month. Of the total, 32 disputes, involving approximately 44,900 workers, were actual stoppages while 30, involving 138,800 were disputes without stoppage.

On July 1, 1941, 38 labor disputes, involving approximately 81,300 employees, were being watched by the Labor Division of the Office

of Production Management. Of these, nine were actual stoppages, affecting approximately 9,950 workers. The most important of these stoppages was at the United States Gypsum Company of Chicago, Illinois, and involved 3,000 workers at 14 of the company's plants. None of the nine stoppages seriously affected the defense program.

Twenty-nine cases were disputes involving no stoppage on July 1. The most important of these were:

Federal Shipbuilding Corporation, Kearney, N. J. (Case before the National Defense Mediation Board)	16,000 Workers
North American Aviation, Inc., Inglewood, Calif. (Stoppage in this case was of 4 days duration ending on June 9. Issues involved in this dispute were submitted to the National Defense Mediation Board and agreement was reached on July 1)	11,000 Workers
American Brass Company, Waterburn, Conn.	8,000 Workers
Pittsburgh Truckers, Pittsburgh, Pa. (Settled by National Defense Mediation Board July 2)	1,000 Workers

Note: Industrial disputes in defense industries were discussed in Issue 43 pages 18-19, Issue 39, pages 34-38, Issue 31, pages 2-6, and Issue 26, pages 19-20. Labor conflict in Canada was treated in Issue 44, pages 10-13.

## U. S. EXPORT TONNAGE

JANUARY, 1940 - JUNE, 1941

United States export tonnage during the second quarter of 1941 is estimated to be higher than during the first quarter of the year, but below the level prevailing in 1940. This estimate, based upon computations made by the Bureau of Research and Statistics, represents total exports of dry-cargo overseas tonnage.<sup>a</sup> Such exports show 1.4 million tons for April, and preliminary data indicate about the same level for May and June, bringing the quarterly total to approximately 4.2 million tons. Dry-cargo exports overseas during the second quarter of 1940 totaled 4.8 million tons. The tonnage of these exports for the past six quarters is shown in the accompanying chart.

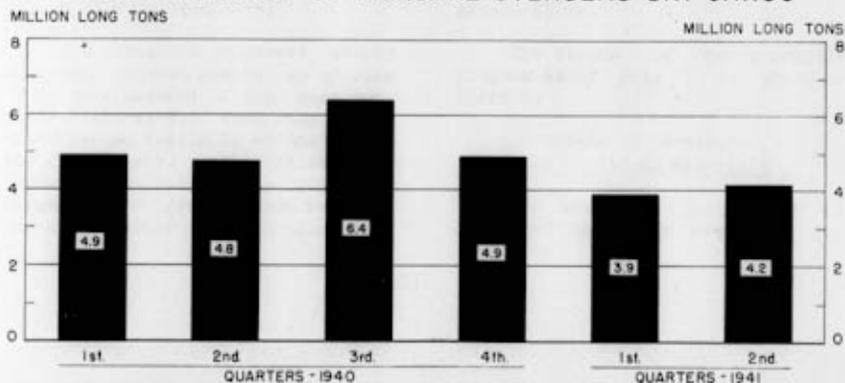
The heavy export tonnage for the third quarter of 1940 included over-age defense materials which were transferred from existing

United States stocks to the British. During that period there were, in addition, unusually large export tonnages of nonferrous metals and of iron and steel, including scrap and steel-mill products.

A tight shipping situation contributed to the continued low tonnage during the first quarter of 1941. Loss of Continental European markets for American agricultural products and a shift in the character of British purchases from raw materials to finished products were also factors.

<sup>a</sup> Estimated by converting 33 Department of Commerce export classifications into long tons. The figures are representative of total dry-cargo exports overseas.

### EXPORT TONNAGE OF PRINCIPAL OVERSEAS DRY CARGO



## DEFENSE PROGRESS SERIES

### Defense Program, Contracts, and Disbursements

The United States Defense Program (including Defense Aid and British orders), as shown in Defense Progress Series and Chart 1, amounted to \$49.6 billion at the start of fiscal year 1942. Total contract awards and obligations against these funds were \$28.7 billion and cash payments amounted to \$9.1 billion.

Cash disbursements for June amounted to slightly less than \$1.1 billion as compared with approximately \$1 billion per month in March, April, and May of this year.

The principal changes in the program during the past months reflect a downward revision in the Navy Program and the increase in Army funds and authorizations of \$7.2 billion (net funds in the so-called "\$10 Billion Act").

The data on contract awards have been revised upward as of June 30 to take account of the more complete information from the Navy which became available at the end of the fiscal year. Allocations of funds and contract awards under the Defense Aid Program are now reported and are included in the totals.

### Stockpile Program

Between May 31 and July 5, 1941 total deliveries of strategic materials increased from 31.4 percent to 34.3 percent of the value of the recommended stockpile. The largest individual percentage change was for quinine, which increased from 84.3 to 101.3 and is the first material for which the stockpile has been completed. Rubber is the only other material for which deliveries have reached as much as 50 percent of the recommended stockpile. During this period additional deliveries were also made of mica, chrome, manila fiber, tin, antimony, manganese and quartz crystals.

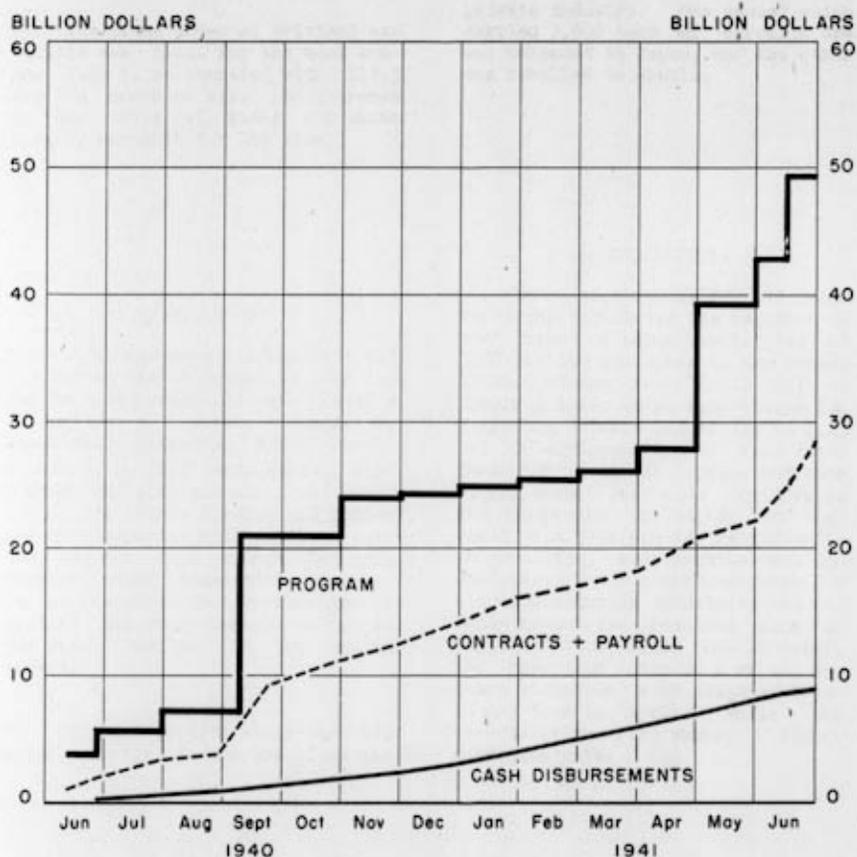
Excluding the excess purchases of antimony, manganese, quinine and tungsten total purchases as of July 5 amounted to 68.6 percent of the stockpile. Additional contracts were placed for tungsten, rubber, manganese, mica, tin, antimony, and manila fiber.

The status of the stockpile program as of July 5 is shown in Chart 2.

### Prices of Strategic and Critical Materials

The wholesale price index of strategic materials was 139.3 for

CHART I - ENACTED DEFENSE PROGRAM \*  
AND CONTRACT AWARDS FOR DEFENSE PURPOSES  
JUNE 11, 1940 - JUNE 30, 1941<sup>‡</sup>



\* United States and British Programs.

‡ Revised.

the week ending July 5 as compared with 138.9 for the month of May. The increase was largely attributable to a rise in the price of mercury.

The price index of critical materials was 114.4 for the week ending July 5, as compared with 113.5 for the month of May. An increase in the price of hides and skins largely accounts for the rise.

Philippines to the United States were withdrawn from service by the Japanese Government on July 1. These shipments were consigned both to the Metals Reserve Company and private industry. One vessel which carried 3,600 tons of chromite ore was unloaded in Japan, and the other was recalled to Manila.

#### Press Notes

In an agreement signed last May the United States agreed to take for the next two years all of Brazil's production of rubber, manganese, industrial diamonds, mica, quartz crystals, rutile, ferro-nickel, zirconium, bauxite, chromite, and beryl ores. The Metals Reserve and Rubber Reserve Companies will purchase only the amounts that cannot be sold through usual commercial channels. It is reported that exportation of certain important defense materials has been limited to the United States.

Official reports state that two ships carrying chrome ore from the

#### Labor Turnover

Total separations for all manufacturing industries (as reported by the Bureau of Labor Statistics) at 3.86 per 100 employees in May showed little change from April 1941 or from May 1940; total separations for 7 leading defense industries at 3.23 per 100 employees in May were lower than the 3.43 in April, but much higher than a year ago. Quit rates and discharges are higher than last month or a year ago in the aircraft, shipbuilding, and machine-tool industries. Total accession rates for all manufacturing industries and defense industries remained high in May, but were lower than in April. The accession rates in 6 of the defense industries were slightly lower in May than in April, while the seventh (aircraft) showed a higher accession rate.

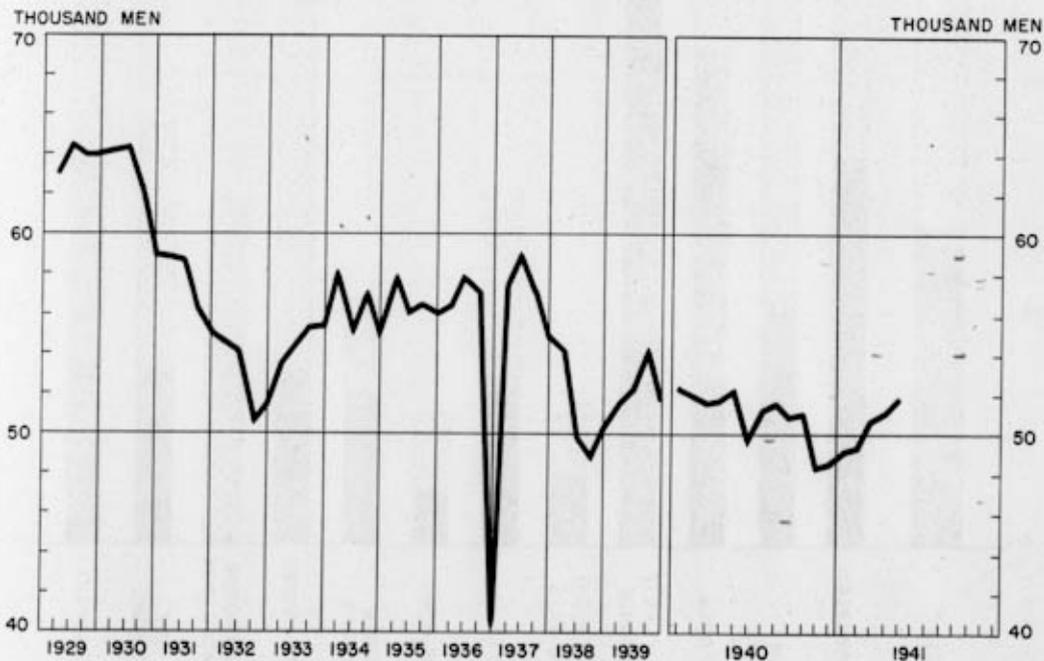
Maritime Employment

Defense Progress Data contain for the first time estimates of the number of persons employed on vessels engaged in coastal and foreign trades.<sup>a</sup> The data in the accompanying chart show a downward trend from 1934 to November 1940 in the number of men employed in the United States Merchant Marine. The transfer of shipping tonnage from United States registry in 1940 explains the sharp decreases in employment in that year.

Since November 1940 the increase in employment results from efforts to put the maximum amount of United States shipping back into service. The merchant shipbuilding program will soon require a sharply increased employment and, by the end of 1943, will require the greatest number of seamen since the World War period.

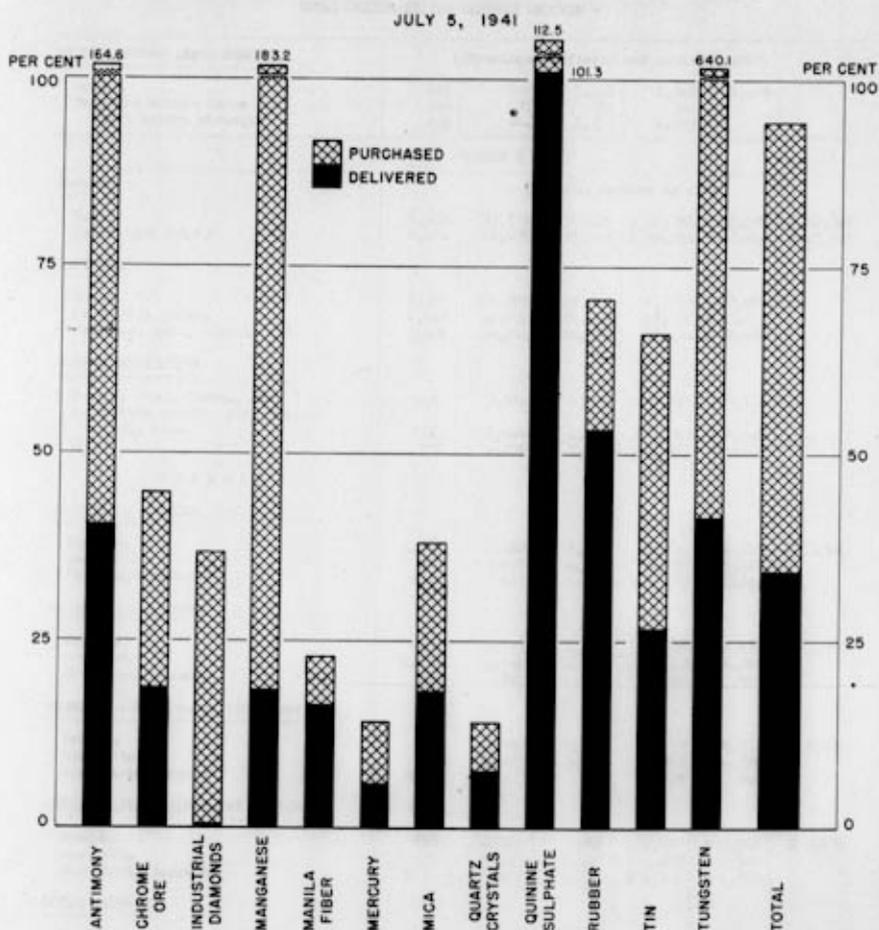
<sup>a</sup> Data provided by United States Maritime Commission, Division of Economics and Statistics.

## EMPLOYMENT ON UNITED STATES CARGO SHIPS



DEFENSE PROGRESS SERIES

CHART 2 - PER CENT OF RECOMMENDED STOCKPILE OF STRATEGIC MATERIALS PURCHASED AND DELIVERED\*



\* Based on the estimated or actual dollar cost of the ACCND - OPM 1940 - 1941 recommendations.

## DEFENSE PROGRESS SERIES

	1940		1941			
	July	January	April	May	June	Week Ending July 5
TOTAL UNITED STATES DEFENSE PROGRAM *						
UNITED STATES ARMED FORCES						
	(Thousands, officers and enlisted men)					
Army	289	693	1,211	1,362	1,448	
Navy and Marine Corps	196	271	310	311		
Total active strength	485	964	1,522	1,673		

PROGRAM		(Million dollars to date)					
Total	7,353	25,501	39,403	£ 42,761	£ 49,585	£ 50,762	
Ex British orders	6,072	22,075	35,725	£ 39,055	£ 45,912	£ 47,089	
<b>CONTRACTS</b>							
Total	3,287	15,720	19,811	21,213	£ 27,296		
Ex British orders	2,147	12,294	16,133	17,507	£ 23,623		
Plus pay, sub., travel, etc.	3,429	16,364	20,902	22,438	£ 28,660		
<b>CASH DISBURSEMENTS</b>							
Ex pay, sub., travel, etc.	n.a.	3,554	6,006	£ 6,837	£ 7,728		
Ex British orders, pay, sub., travel, etc.	n.a.	2,016	4,078	£ 4,843	£ 5,648		
Total	571	4,176	7,074	£ 8,071	£ 9,149		
<b>OBJECTS</b>							
<b>AIRPLANES, ENGINES, ETC.</b>							
Program	1,564	4,582	8,134	8,214	£ 11,469	£ 11,961	
Contracts	889	3,852	4,173	4,655	£ 6,122		
Cash disbursements	n.a.	885	1,288	£ 1,435	£ 1,595		
<b>NAVAL SHIPS &amp; PARTS</b>							
Program	683	6,139	6,385	6,785	£ 6,430	£ 6,586	
Contracts	1,207	4,500	4,527	4,548	£ 4,264		
Cash disbursements	29	321	529	£ 600	£ 690		
<b>ORDNANCE (Incl. Naval Ordnance)</b>							
Program	918	4,748	7,753	8,127	£ 8,034	£ 8,081	
Contracts	367	2,511	3,725	3,992	£ 4,738		
Cash disbursements	n.a.	445	743	£ 829	£ 944		
<b>OTHER MILITARY EQUIPMENT &amp; SUPPLIES</b>							
Program	770	2,121	2,965	2,981	£ 3,925	£ 3,975	
Contracts	434	1,852	2,137	2,237	£ 2,540		
Cash disbursements	n.a.	843	1,329	£ 1,506	£ 1,692		
<b>TOTAL MATERIEL</b>							
Program	3,935	17,590	25,237	26,107	£ 29,858	£ 30,603	
Contracts	2,897	12,715	14,562	15,432	£ 19,664		
Cash disbursements	n.a.	2,494	3,889	£ 4,370	£ 4,921		

\* Data are as of the close of the month or week nearest available date.

£ Preliminary data.

£ Revised data.

n.a. Data not available.

(Continued on next page)

## DEFENSE PROGRESS SERIES (Continued)

	1940	1941					Week Ending July 5
	July	January	April	May	June		
<u>MERCHANT SHIPS</u>							
	(Million dollars to date) *						
Program	833	957	1,905	1,905	R 1,905	R 1,905	
Contracts	n.a.	153	932	932	R 1,407		
Cash disbursements	n.a.	151	205	R 230	R 250		
<u>INDUSTRIAL FACIL.-CONS., EQUIP., &amp; REAL ESTATE</u>							
Program	343	2,161	3,956	E 5,030	R 5,530	R 5,530	
Contracts	110	1,513	2,028	2,435	R 2,767		
Cash disbursements	n.a.	273	558	R 682	R 825		
<u>INDUSTRIAL FACILITIES-CONSTRUCTION ONLY</u>							
Program			1,240	1,338	R 1,338	R 1,338	
Contracts			n.a.	n.a.	n.a.		
Value in place			E 266	R 376			
<u>POSTS, DEPOTS, &amp; FORTIFICATIONS</u>							
Program	643	1,431	2,785	3,137	R 3,652	R 3,708	
Contracts	230	802	1,484	1,518	R 2,212		
Value in place	n.a.	n.a.	1,225	1,311			
Cash disbursements	10	534	1,141	R 1,309	R 1,419		
<u>HOUSING</u>							
Program	40	290	330	495	495	R 645	
Contracts	n.a.	128	227	245	R 283	R 283	
Value in place	n.a.	n.a.	63	E 84			
Cash disbursements	n.a.	n.a.	n.a.	n.a.	n.a.		
<u>STOCKPILE PROGRAM</u>							
Program	60	588	794	954	954	R 954	
Contracts	50	276	401	458	R 470		
Cash disbursements	n.a.	65	136	R 151	R 193		
<u>OTHER</u>							
Program	283	534	843	869	R 920	R 1,138	
Contracts	n.a.	133	187	193	R 515		
Cash disbursements	n.a.	37	77	R 95	R 120		
<u>PAY</u>							
Program	502	794	839	1,120	R 2,345	R 2,355	
Army	327	619	619	619	R 1,844	R 1,844	
Navy	175	175	200	450	R 450	R 457	
Cash disbursements	n.a.	505	861	R 997	R 1,152		
Army	n.a.	297	528	R 620	R 725		
Navy	n.a.	185	293	R 330	R 370		
<u>SUBSISTENCE, TRAVEL, ETC.</u>							
Program	714	1,156	2,714	3,144	R 3,924	R 3,924	
Cash disbursements	n.a.	E 117	E 207	E 237	R 269		

\* Data are as of the close of the month or week nearest available date.

R Preliminary data.

E Revised data.

n.a. Data not available.

(Continued on next page)

## DEFENSE PROGRESS SERIES (Continued)

	1940	1941				Week Ending July 5
	July	January	April	May	June	
<b>VALUE OF FACIL. ON APPLIC. FOR CERT. OF NECESSITY</b> (Million dollars to date)*						
Total			1,113	1,232		
Approved, private funds				747		
Approved, public funds				200		
Pending			213	281		
<b>DEFENSE HOUSING</b> (Number of dwelling units) *						
Fund allocations	56,528	86,361	106,053	110,298	120,368	120,368
Construction contracts awarded	36,191	60,293	72,334	78,830	78,830	78,830
Construction completed	1,314	9,024	14,414	21,768	23,193	23,193
<b>PRIORITY CERTIFICATES &amp; EXTENSIONS</b> (Number)						
Total issued			131,208	217,282	298,949	320,404
<b>A G E N C I E S</b>						
<b>U. S. MILITARY</b> (Million dollars to date) *						
<b>ARMY</b> - Program	2,620	8,377	13,135	13,135	R 20,345	R 20,352
Contracts + payroll	582	6,084	7,496	8,308	R 10,083	
Cash disbursements	78	1,368	2,822	R 3,340	R 3,880	
<b>NAVY</b> - Program	2,085	10,726	11,823	13,633	R 13,215	R 13,967
Contracts + payroll	1,515	5,951	7,592	8,178	R 11,228	
Cash disbursements	84	1,021	1,776	R 2,044	R 2,335	
<b>TOTAL</b> - Program	4,705	19,103	24,958	26,768	R 33,560	R 34,319
Contracts + payroll	2,097	13,935	15,088	16,486	R 21,311	
Cash disbursements	162	2,369	4,598	R 5,384	R 6,215	
<b>DEFENSE AID (Lend-Lease)</b>						
Program			7,000	7,000	7,000	7,000
Allocations			n.s.	4,277	R 4,771	
Contracts			n.s.	n.s.	R 1,392	
Cash disbursements				R 7	R 21	
<b>MARITIME COMMISSION</b>						
Program	804	804	1,154	1,154	R 1,154	R 1,154
Contracts	n.s.	n.s.	810	810	R 810	
Cash disbursements	8	83	121	R 137	R 155	
<b>RFC AND SUBSIDIARIES</b>						
Program		1,166	1,526	2,767	R 2,767	R 2,767
Commitments		715	1,039	1,131	R 1,153	
Cash disbursements		72	204	R 272	R 333	
<b>BRITISH ORDERS</b>						
Program	1,282	3,426	3,678	R 3,692	R 3,673	R 3,673
Contracts	1,282	3,426	3,678	R 3,692	R 3,673	R 3,673
Cash disbursements	396	1,538	1,928	R 1,994	R 2,080	
<b>OTHER AGENCIES</b>						
Program	565	1,002	1,087	1,380	R 1,431	R 1,849
Contracts	50	188	287	305	R 321	
Cash disbursements	5	114	223	R 277	R 336	

\* Data are as of the close of the month or week nearest available date.

R Preliminary data.

R Revised data.

n.s. Data not available.

(Continued on next page)

## DEFENSE PROGRESS SERIES (Continued)

	1940	1941				
	July	January	April	May	June	Week Ending July 5

## PRODUCTION RATES &amp; TOTAL PRODUCTION OF DEFENSE EQUIPMENT\*

PRODUCTION RATE INDEXES	(Indexes, production in scheduled peak month=100)					
	1940	1941	1941	1941	1941	1941
Military airplanes	13.0	21.7	33.9	31.4	E 34.7	
Combat vehicles	n.a.	10.1	18.1	25.2	E 33.5	
Combat vessels	16.7	22.8	29.9	31.2	E 35.1	
Army-type guns, total	n.a.	22.0	37.1	36.4	E 38.4	
Field artillery	n.a.	7.1	13.8	14.3	E 14.6	
Antiaircraft guns	n.a.	19.7	22.6	28.1	E 23.0	
Infantry-supporting guns	n.a.	21.6	38.5	36.0	E 41.0	
TOTAL PRODUCTION INDEXES	(Indexes, cumal. since July 1940, program requirements=100)					
Military airplanes	0.5	4.4	7.9	9.2	E 10.7	
Combat vehicles	n.a.	3.4	5.8	7.3	E 9.3	
Combat vessels	5.8	9.3	11.5	12.4	E 13.5	
Army-type guns, total	n.a.	6.6	11.7	13.8	E 16.1	
Field artillery	n.a.	2.0	3.7	4.7	E 5.7	
Antiaircraft guns	n.a.	4.2	7.3	8.7	E 9.9	
Infantry-supporting guns	n.a.	9.2	16.4	19.2	E 22.3	

## STOCKPILES\*

PURCHASES	(Percent of value recommended)					
	1940	1941	1941	1941	1941	1941
Antimony	0	53.1	162.9	162.9	164.6	164.6
Chrome Ore	13.1	38.4	53.7	A 45.1	44.6	E 44.2
Indus. Diamonds	0	0	0	96.0	36.8	36.8
Manganese	12.7	133.1	149.0	176.6	180.3	183.2
Manila Fiber	5.1	11.8	17.8	20.2	22.5	22.8
Mercury	0	56.1	48.4	A 14.2	14.2	14.2
Mica	0	11.4	66.5	A 32.8	38.0	38.0
Quartz Crystals	18.4	97.4	97.4	A 14.1	14.1	14.1
Quinine Sulphate	11.3	112.9	112.9	112.5	112.5	112.5
Rubber	14.4	47.6	61.4	61.9	67.6	70.9
Tin	6.5	33.2	63.3	63.3	63.3	66.1
Tungsten	5.5	221.7	392.8	621.8	640.1	640.1
Total		56.7	82.6	89.2	91.2	94.6
Total without excess	10.3	48.8	67.0	E 64.5	66.4	68.6
DELIVERIES						
Antimony	0	13.1	37.4	38.8	40.5	40.5
Chrome Ore	3.7	14.3	17.3	A 14.3	18.6	18.9
Indus. Diamonds	0	0	0	.5	.3	.3
Manganese	3.8	8.3	15.4	17.9	18.4	18.4
Manila Fiber	4.6	7.8	9.5	12.2	15.5	16.6
Mercury	0	10.2	15.1	A 5.9	5.9	5.9
Mica	0	2.5	8.1	10.0	14.5	18.2
Quartz Crystals	12.4	26.6	46.0	A 7.0	7.5	7.5
Quinine Sulphate	11.3	35.5	80.0	84.3	101.3	101.3
Rubber	11.6	34.3	45.8	47.7	53.0	53.2
Tin	3.7	15.3	23.5	25.1	26.5	26.9
Tungsten	5.7	48.9	41.2	50.0	41.4	41.4
Total	6.6	22.0	30.7	31.4	34.0	34.3

\* Data are as of the close of the month or week or nearest available date.  
 A Recommendation for this commodity was increased. B Stocks released. E Adjustment of funds.

(Continued on next page)

## DEFENSE PROGRESS SERIES (Continued)

Series	1940		1941			
	July	January	April	May	June	Week Ending July 5
ECONOMIC ACTIVITY RELATED TO DEFENSE *						
<b>FED. RES. IND. PRODUCTION INDEXES</b>						
	(Indexes 1935-39=100)					
Total industrial production	121	140	140	R 149		
Durable manufactures	132	170	167	R 177		
Non-durable manufactures	112	122	131	R 135		
Minerals	120	118	101	R 126		
<b>SUB. FOR. &amp; DOM. COM. MFGS. ORDERS, SHIPMENTS, INVENTORIES</b>						
	(Indexes)					
New orders, total (1/39=100)	127	176	E 196	R 207		
Shipments, total (1/39=100)	117	148	172	R 179		
Total inventories (12/31/38=100)	109.2	120.8	123.6	R 126.5		
Durable inventories (12/31/38=100)	111.9	129.7	E 134.1	R 137.6		
Non-durable inventories (12/31/38=100)	106.4	111.2	E 112.2	R 114.5		
<b>BLS PRICE INDEXES</b>						
	(Indexes)					
Strategic materials (8/39=100)	E 123.6	126.1	E 136.5	E 138.7	n.a.	139.3
Critical materials (8/39=100)	E 107.5	E 111.7	E 112.5	E 113.5	n.a.	114.4
Basic commodities (8/39=100)	E 108.5	120.5	E 136.6	E 142.5	R 146.3	146.1
Machine tools (8/39=100)	108.7	114.6	116.4	117.3	n.a.	n.a.
All commodities (1926=100)	77.7	80.8	83.2	84.9	R 87.1	87.7
<b>BLS COST OF LIVING INDEX (1935-39=100)</b>						
	100.3	100.8	102.2	102.9		
<b>TRANSPORTATION AND POWER</b>						
	(Weekly average)					
Freight loadings (Thousands)	707	684	699	832	909	740
Unloadings for export (Dly. av. cars)	1,502	1,352	1,514	1,479	1,508	1,330
Freight-car surplus, (Thousands)	133	110	190	72	71	
Box cars	57	43	31	34	34	
Coal cars	47	42	139	16	17	
Electric power prod. (Mil. kw. hrs.)	2,964	3,333	2,533	3,323	R 3,100	R 2,870
<b>FEDERAL DEBT</b>						
	(Billion dollars, end of month)					
Net public debt	41.5	43.9	44.8	45.8		
<b>NATIONAL INCOME</b>						
	(Billion dollars, annual rate)					
Total income payments	E 75.2	E 81.7	E 83.8	R 86.0		
<b>LABOR DISPUTES</b>						
	(Monthly figures)					
<b>PLANTS WITH IMPORTANT DEFENSE CONTRACTS I</b>						
Number strikes in progress	n.a.	13	19	16	11	
Workers involved (thousands)	n.a.	26	30	29	28	
Man-days idle (thousands)		146	238	182	103	
<b>ALL INDUSTRIES</b>						
Number strikes in progress	E 390	322	590	725		
Workers involved (thousands)	E 83	108	555	415		
Man-days idle (thousands)	529	625	7,800	2,250		

\* Data are as of the close of the month or week nearest available date.

R Preliminary data.

E Revised data.

n.a. Data not available.

## DEFENSE PROGRESS SERIES (Continued)

Series	1940		1941			Data Ending July 5
	July	January	April	May	June	
<b>EMPLOYMENT</b>						
	(Thousand workers) *					
Total civil nonagricultural	35,454	36,621	E 37,676	E 38,278		
Private, 18 major defense industries	1,660	2,036	2,259	2,332		
Public defense	E 155	E 203	E 218	220		
Total direct defense	E 1,815	E 2,239	E 2,477	2,552		
WPA employment	1,659	1,894	1,607	1,497		
Personnel employed on deep-sea trade vessels	51	49	51	52		
<b>UNEMPLOYMENT (NICS Estimate)</b>						
	(Monthly total)					
Number of unemployed	8,566	7,367	E 5,412	E 3,962		
<b>LABOR TURNOVER #</b>						
	(Rate per 100 employees)					
<b>ALL MANUFACTURING</b>						
Total accession	4.77	5.54	6.04	5.95		
Total separation	3.35	3.41	3.89	3.86		
Quit	0.85	1.31	2.08	2.20		
Layoff	2.25	1.61	1.19	1.08		
Discharge	0.14	0.18	0.25	0.24		
Military separation	n.a.	0.19	0.28	0.21		
<b>7 MAJOR DEFENSE INDUSTRIES</b>						
Total accession	5.09	7.10	7.01	6.76		
Total separation	1.85	2.70	3.43	3.23		
Quit	0.84	1.24	1.85	1.85		
Layoff	0.73	0.79	0.81	0.71		
Discharge	0.15	0.22	0.29	0.30		
Military separation	n.a.	0.23	0.33	0.23		
<b>AIRCRAFT</b>						
Total accession	12.40	12.17	9.81	10.46		
Total separation	3.57	3.65	3.65	3.89		
Quit	2.96	2.44	2.46	2.59		
Layoff	0.15	0.33	0.42	0.54		
<b>SHIPBUILDING</b>						
Total accession	13.00	18.21	14.34	13.24		
Total separation	5.40	7.91	7.80	6.95		
Quit	1.14	1.93	2.49	2.38		
Layoff	3.71	4.78	4.28	3.62		
<b>MACHINE TOOLS</b>						
Total accession	3.05	6.68	5.88	5.83		
Total separation	2.09	2.44	3.10	3.01		
Quit	1.28	1.77	2.22	2.22		
Layoff	0.21	0.09	0.16	0.10		

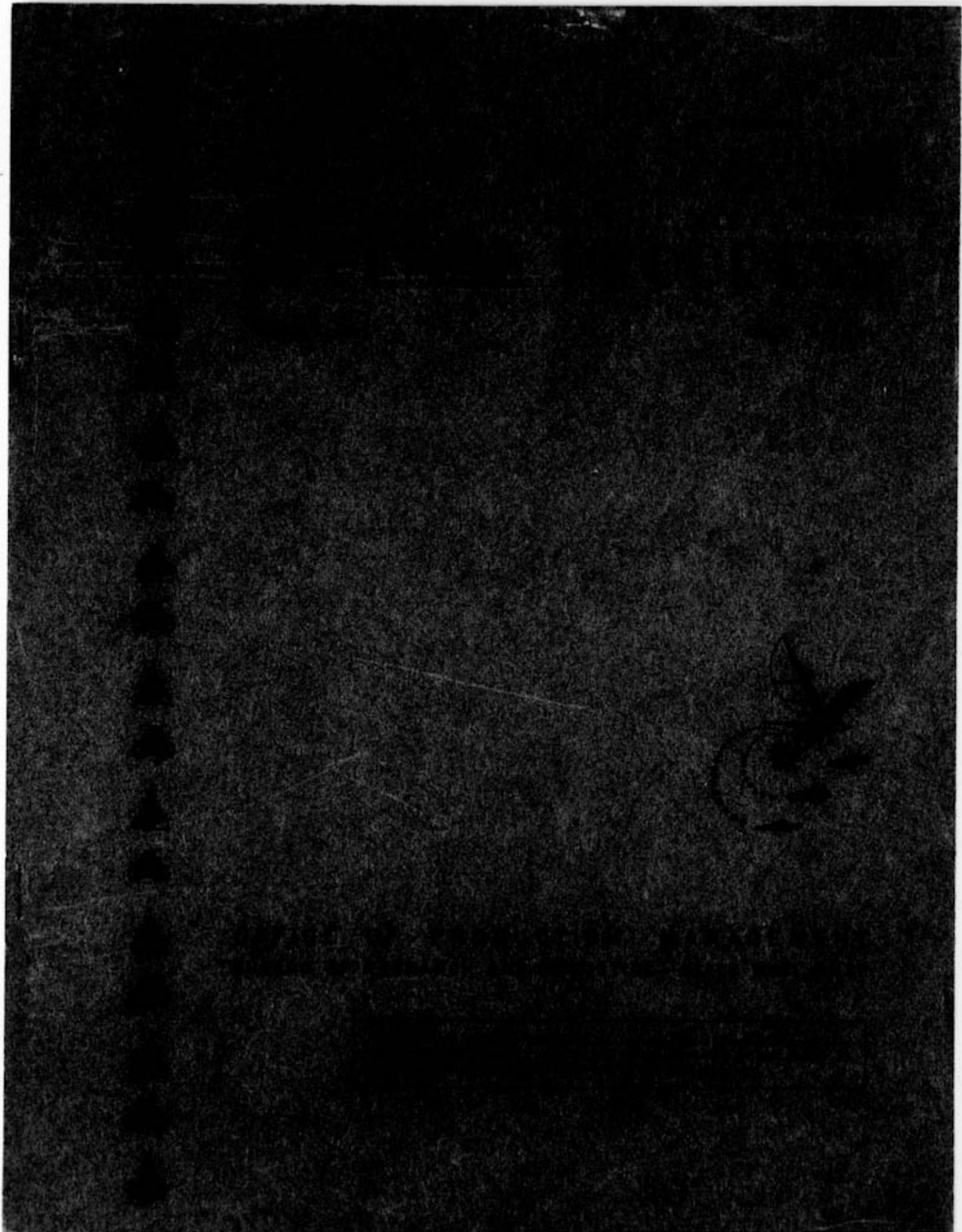
# Bureau of Labor Statistics

\* Data are as of the close of the month or week nearest available date.

E Preliminary data.

E Revised date.

n.a. Data not available.



# DEFENSE PROGRESS

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INDEXES OF UNITED STATES INVENTORIES of selected defense equipment as of July 1, 1941, show: for combat vehicles 10 percent and for guns 12 percent of the 3-million-man effort requirement; for major combat ships 38 percent of the 2-ocean Navy; and for airplanes 14 percent of the 50,000-plane program.	2
THERE MAY BE A SERIOUS SHORTAGE of trained merchant seaman to man the merchant ships scheduled for completion by the end of 1942, according to current estimates of requirements and supply. By December 31, 1942 at least 20,000 additional trained seamen will be needed.	7
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## INVENTORIES OF SELECTED DEFENSE EQUIPMENT

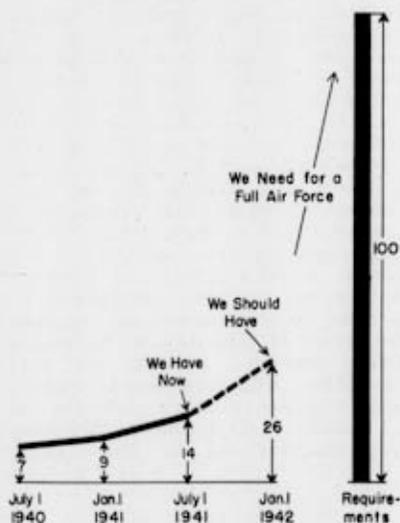
INDEXES OF UNITED STATES INVENTORIES of selected defense equipment as of July 1, 1941, show: for combat vehicles 10 percent and for guns 12 percent of the 3-million-man effort requirement; for major combat ships 38 percent of the 2-ocean Navy; and for airplanes 14 percent of the 50,000-plane program.

The United States program for preparedness must be considered from two points of view: (1) the production of implements of war for Great Britain and other anti-Axis powers, and (2) the building up of domestic stocks of equipment large enough to meet United States tactical requirements. These requirements call for enough materiel to equip a two-ocean Navy, an air-force of 50,000 planes and a 3-million-man Army. Indexes previously presented a showed the progress (total production to date and the monthly rate of production) which has been made in the production of materiel both for our own forces and for defense aid. New indexes b are presented below which show the effect of production in building up American stocks. At the present time stocks range from under 10 percent (combat vehicles) to 38 percent (major combat ships) of United States requirements for a full defense mobilization.

Airplanes. At the start of the defense program in July 1940, the index of military airplanes on hand in the United States was 7 percent, compared with a goal of 50,000 planes as 100 percent. As can be seen in Chart 1, stocks were increased very slightly during the next six months, but by the end of one full year of effort, the index of inventories had been doubled. Now that some of the new industrial

facilities have been constructed and mass production is possible and will soon be under way, stocks may be expected to increase rapidly. At the end of another six months of effort—July to January 1, 1942—inventories should be about 20,000 planes, and the weighted index should be almost double the present level and equal to 26 percent of the total contemplated under the 50,000 plane program.

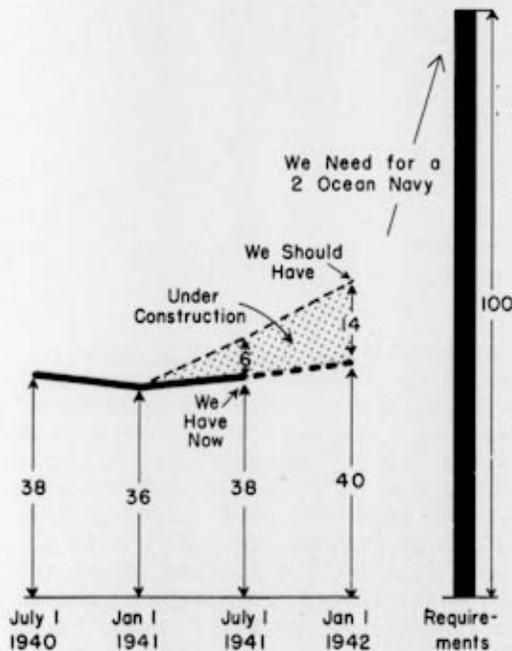
CHART 1 - MILITARY AIRPLANES  
U. S. INVENTORY INDEX



**Combat Vessels.** The two-ocean Navy program calls for an increase in the tonnage of major combat vessels, as compared with the naval tonnage in June 1940, by almost 170 percent—that is, at the start of the program we had on hand slightly over one-third of the total needed for the two-ocean Navy. The indexes of inventory presented in Chart 2 show that tonnage on hand declined after July 1, due to the transfer of 50 over-age destroyers to Great Britain and to the conversion of 27 over-age destroyers into auxiliaries.

At the end of the first year the index of major combat ships is almost back to the original level. It should be recognized, however,

CHART 2 - MAJOR COMBAT SHIPS  
U. S. INVENTORY INDEX

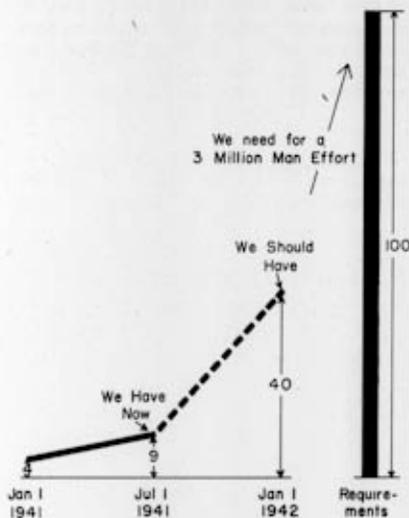


that the tactical position represented now is stronger than it was a year ago, since present tonnage does not include so large a number of over-age vessels. In addition to the ships which have been delivered under the expansion program, work is currently being performed on over 700 thousand tons of ships for which keels have been laid. These ships are, on the average, about 40 percent complete. If this completed work were added to the tonnage on active duty, the index of inventories would be increased 6 points (shown as a light dotted line on the chart) to 44. Next January the index, including both ships delivered and work completed on unfinished vessels, should reach 54, or ten points higher than it now stands, although the index including only active-duty ships will be 40, as compared with an index of 38 for active ships now.

**Combat Vehicles.** At the start of the defense effort, the United States had almost no facilities for the production of combat vehicles. Light scout cars presented a relatively easy production problem for automobile producers, and it has been possible to build up a substantial inventory of this type of vehicle and, in addition, to obtain a few hundred light tanks by the end of the first year of the program. New facilities are now available, however, permitting a large volume of production and, by the end of another six months, United States stocks of vehicles will be increased from the present 9 percent to 40 percent of the needs of a 3-million-man effort. Chart 3 indicates the growth of inventory since January 1, 1941. (Data are not available for July 1, 1940.)

It is interesting that combat-vehicle needs for a 1.7-million-man effort are about .75 percent of those for a 3-million-man effort. Well over half of the requirements for a 1.7-million-man effort should be on hand on January 1, 1942.

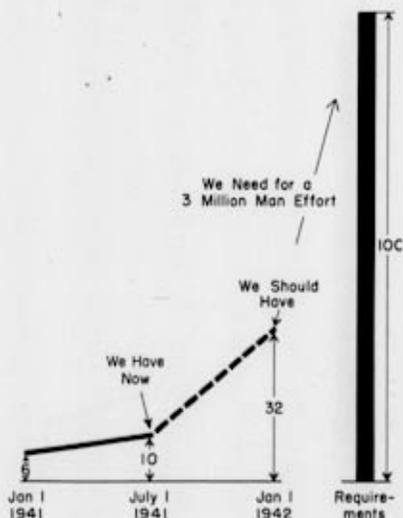
CHART 3 - COMBAT VEHICLES  
U. S. INVENTORY INDEX



Army-type Guns. Inventories of Army-type guns, compared with the inventories of those needed for a 3-million-man effort as 100, on January 1, 1941, amounted to 6; these were doubled in the six months to July 1, 1941, with the index standing at 12, and by January 1, 1942, the index will be 40. A more detailed analysis of inventories of main types of guns is presented below.

Field Artillery. Indexes indicating the growth in the inventory of field artillery are shown in Chart 4. At the end of the first six months of effort, stocks were only 6 compared with requirements for a 3-million-man effort of 100. Almost all of these stocks represented modernization of old equipment. By the end of the first year enough additional guns had been modernized and a relatively small number of new weapons had been produced, to raise the index to 10. Production of the two new standard weapons—the 155 mm gun and the 105 mm howitzer—is scheduled to increase markedly during the summer, and, by next January, the index should reach 32, over 3 times as high as it now stands.

CHART 4 - FIELD ARTILLERY  
U. S. INVENTORY INDEX



Antiaircraft Weapons. At the start of the defense program the United States armed forces had enough machine guns and 3" antiaircraft guns to give an inventory index of 7 percent of estimated requirements. By July 1, 1941, as is shown in Chart 5, the index reached 11, mainly through production of 37 mm guns and machine guns. Large scale production of the 50 cal. antiaircraft gun and the standard 90 mm gun during the next six months should cause the index to reach 22 on January 1, 1942. The scheduled position next January will be the lowest of any of the three indexes of guns presented here.

Infantry-supporting weapons. On January 1, 1941, the Army had less than 7 percent of its requirements

of new Garand rifles and slightly over 3 percent of its requirements for machine guns and submachine guns. The inventory index (excluding inventories of Springfield rifles being used as substitute standard weapons, awaiting production of Garands) on January 1 was 5 compared with requirements for a 3-million-man Army as 100. Production of these weapons is a comparatively easy problem, and, within the six months to July 1, 1941, the index reached 13. The most important constituents in this expansion were rifles, light machine guns, and 37 mm guns. Chart 6 shows that, by the end of another six months, inventories should amount to 55 percent of estimated needs. At that time the principal shortages will be in 37 mm guns, heavy machine guns, and Garand rifles.

CHART 5- ANTI-AIRCRAFT WEAPONS  
U. S. INVENTORY INDEX

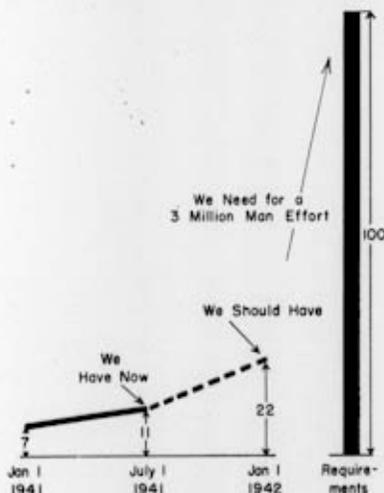
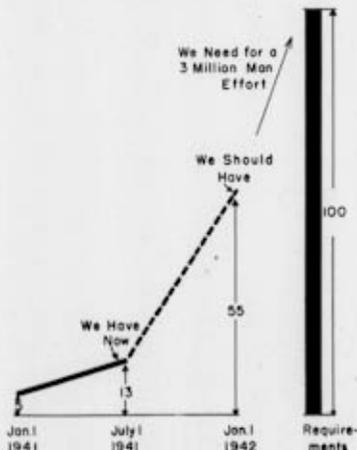


CHART 6- INFANTRY SUPPORTING WEAPONS  
U. S. INVENTORY INDEX



Footnotes

<sup>A</sup> Issue 46, pp. 2-6; Issue 47 pp. 2-8.

<sup>B</sup> The weights used in constructing the inventory indexes are the same as those used in the production rate and total production indexes. (cf. Footnote <sup>A</sup>)

## MERCHANT SEAMEN REQUIREMENTS

*There may be a serious shortage of trained merchant seamen to man the merchant ships scheduled for completion by the end of 1942, according to current estimates of requirements and supply. By December 31, 1942, at least 20,000 additional trained seamen will be needed.*

A serious shortage of trained personnel to man the merchant ships scheduled to be completed by the end of 1942 is likely, according to current estimates of requirements and supply. It is clearly undesirable to aggravate the existing shipping situation with a shortage in trained personnel.

Estimates indicate that 20 thousand merchant seamen in addition to those employed on July 1, 1941,

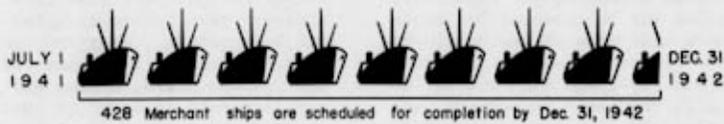
will be required by the end of 1942. This means an increase of about 40 percent in the total volume of employment. The scheduled completion of 428 merchant ships is assumed in this estimate. When these ships are added, the American merchant fleet will total 1,538 ships by the end of 1942, as compared with 1,110 ships on July 1, 1941. The Maritime Commission training program now in effect is based on the requirements for the 314 ships ordered prior to

### ESTIMATED REQUIREMENTS AND TRAINING PROGRAM FOR MERCHANT SEAMEN

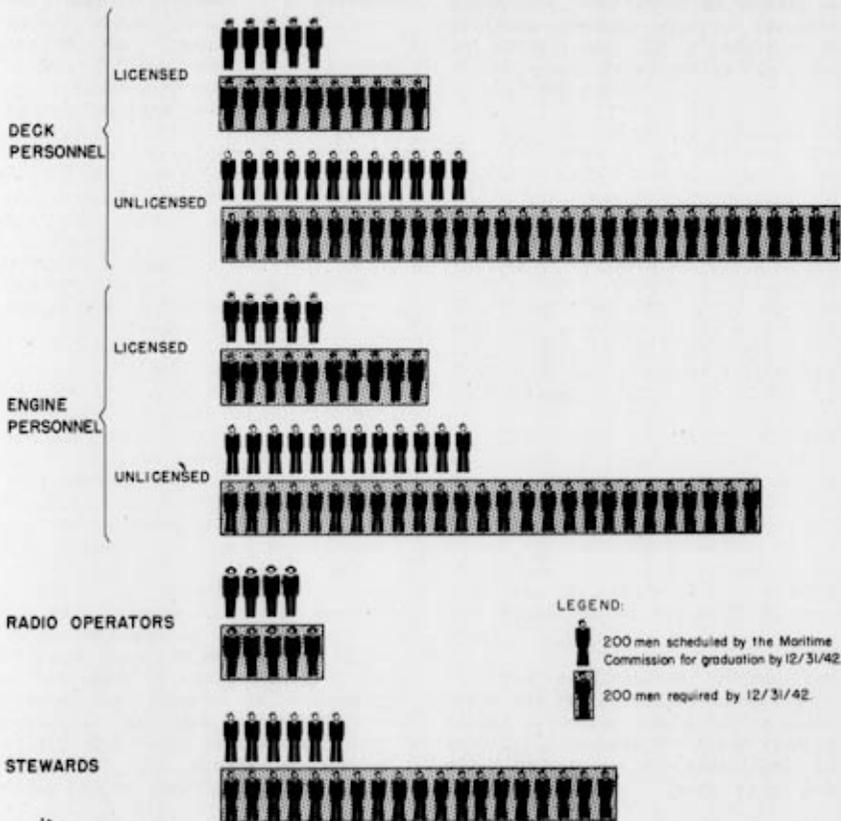
BY DECEMBER 31, 1942

Personnel		Estimated Personnel Employed as of July 1, 1941	Estimated Additional Requirements	Training Program	Training Program as Percent of Requirements	Training Program Plus Estimated Employment as Percent of Total Requirements by Dec. 31, 1942
Deck	Licensed	4,800	2,000	1,000	(Percent) 50	(Percent) 85
	Unlicensed	13,000	5,900	2,400	41	82
Engine	Licensed	4,800	2,000	1,000	50	85
	Unlicensed	12,000	5,200	2,400	46	84
Radio		1,200	1,000	800	80	91
Stewards		12,500	3,800	1,200	32	84
Other		400	100	-	0	80
Total		48,700	20,000	8,800	44	84

SEAMEN REQUIRED FOR MERCHANT SHIP PROGRAM



THESE NEW SHIPS WILL REQUIRE 20,000 MERCHANT SEAMEN, OF WHICH THE TRAINING PROGRAM IS PLANNED TO SUPPLY 8,800 BY DEC. 31, 1942.



March 1, 1941, and represents full use of available training facilities and a large expansion over previous training programs. Under it 8,800 men are scheduled to be graduated during the next eighteen months. The situation by types of personnel required and to be trained is shown in the accompanying table and chart.

The training schedules will thus supply about 50 percent of the additional licensed personnel: masters, mates, junior officers, engineers, etc., required by December 31, 1942. These schedules will also supply between 30 and 50 percent of the requirements for additional unlicensed personnel: boatswains, able seamen, junior engineers, wipers, etc. In the case of radio operators, the training program will supply about 80 percent of the additional requirements. The total potential personnel shortage for the next eighteen months is about 55 percent of the additional requirements.

The major difficulty will arise, however, with the licensed personnel. The officers' unions have expressed confidence in their ability to secure the requisite number of trained men. But, in order to meet the requirements, it will be necessary, in addition to the training program, to find a number of officers equal to 20 percent of the licensed personnel employed on July 1, 1941. Whether a sufficient number of men who were previously on the sea and are now employed in land work can be attracted back to sea-service without the offer of substantially higher salaries or bonuses is extremely doubtful. In view of the desirability of keeping down inflationary tendencies, the wisdom of such a policy may be questioned.

In the case of the unlicensed personnel, the potential shortage is about 60 percent of the additional requirements. To meet this shortage, however, various possible courses of action are open: (1) the use of the reserve of "beached" (i.e., unemployed) seamen; (2) the attracting back to sea-service persons now employed in land work; (3) the dilution of crews by the employment of 50 percent trained and 50 percent green men, the latter to be used as ordinary seamen, wipers, and mess attendants; and (4) a reduction in the present requirements for the size of the crews.

For all classes of personnel it may be possible to increase the training facilities by reducing the training period, thus permitting the training of more than the present scheduled number of graduates. It may also be possible to add to the upper ranks by shortening the period of service required before advancement is permitted. But, for the sake of efficiency, too great a reduction in the amount of training is undesirable.

The extent of the problem may be reduced by transferring the ships to other registries, thus throwing the burden in part or in whole upon other countries. It may also be reduced by removing obstacles to the recruitment of foreign personnel, if this can be done without reducing the standards of the shipping service.

The construction program now under way has scheduled an additional 219 ships for completion in 1943. Labor requirements for these vessels will amount to an additional 10 thousand seamen. These have not

been included in the foregoing estimate. The construction schedules of the whole program will surely be speeded up and an attempt will be made to complete many more than 428 ships by January 1, 1943. In this case, the prospective gap between re-

quirements and supply of licensed personnel will be further increased.

\*Based on data furnished by United States Maritime Commission.

## DEFENSE PROGRESS SERIES

	1940		1941			
	July	January	May	June	Week Ending	
					July 5	July 12

## TOTAL UNITED STATES DEFENSE PROGRAM \*

UNITED STATES ARMED FORCES	(Thousands, officers and enlisted men)					
Army	289	693	1,362	1,448	1,449	1,477
Navy and Marine Corps	196	271	311	327		
Total active strength	485	964	1,673	1,775		

## FINANCIAL PROGRAM I

PROGRAM	(Million dollars to date)					
Total	7,353	25,501	42,761	49,608	50,785	50,785
Ex British orders	6,072	22,075	39,055	45,912	47,089	
<b>CONTRACTS</b>						
Total	3,287	15,720	21,213	27,296		
Ex British orders	2,147	12,294	17,507	23,623		
Plus pay, sub., travel, etc.	3,429	16,364	22,438	28,660		
<b>CASH DISBURSEMENTS</b>						
Ex pay, sub., travel, etc.	n.a.	£ 3,554	£ 6,791	£ 7,677		
Ex British orders, pay, sub., travel, etc.	n.a.	£ 2,016	£ 4,797	£ 5,996		
Total	571	£ 4,183	£ 8,066	£ 9,126		
<b>OBJECTS</b>						
<b>AIRPLANES, ENGINES, ETC.</b>						
Program	1,564	4,582	8,214	11,465	11,957	11,957
Contracts	889	3,852	4,655	6,122		
Cash disbursements	n.a.	£ 855	£ 1,331	£ 1,439		
<b>NAVAL SHIPS &amp; PARTS</b>						
Program	683	6,139	6,785	6,430	6,586	6,586
Contracts	1,207	4,500	4,568	6,264		
Cash disbursements	29	£ 317	£ 588	£ 660		
<b>ORDNANCE (Incl. Naval Ordnance)</b>						
Program	918	4,748	8,127	8,034	8,081	8,081
Contracts	367	2,511	3,992	4,738		
Cash disbursements	n.a.	£ 432	£ 838	£ 975		
<b>OTHER MILITARY EQUIPMENT &amp; SUPPLIES</b>						
Program	770	2,121	2,981	3,925	3,975	3,965
Contracts	434	1,852	2,237	2,540		
Cash disbursements	n.a.	£ 891	£ 1,552	£ 1,728		
<b>TOTAL MATERIAL</b>						
Program	3,935	17,590	26,107	29,858	30,603	30,603
Contracts	2,897	12,715	15,432	19,664		
Cash disbursements	n.a.	£ 2,495	£ 4,309	£ 4,802		

\* Data are as of the close of the month or week nearest available date.

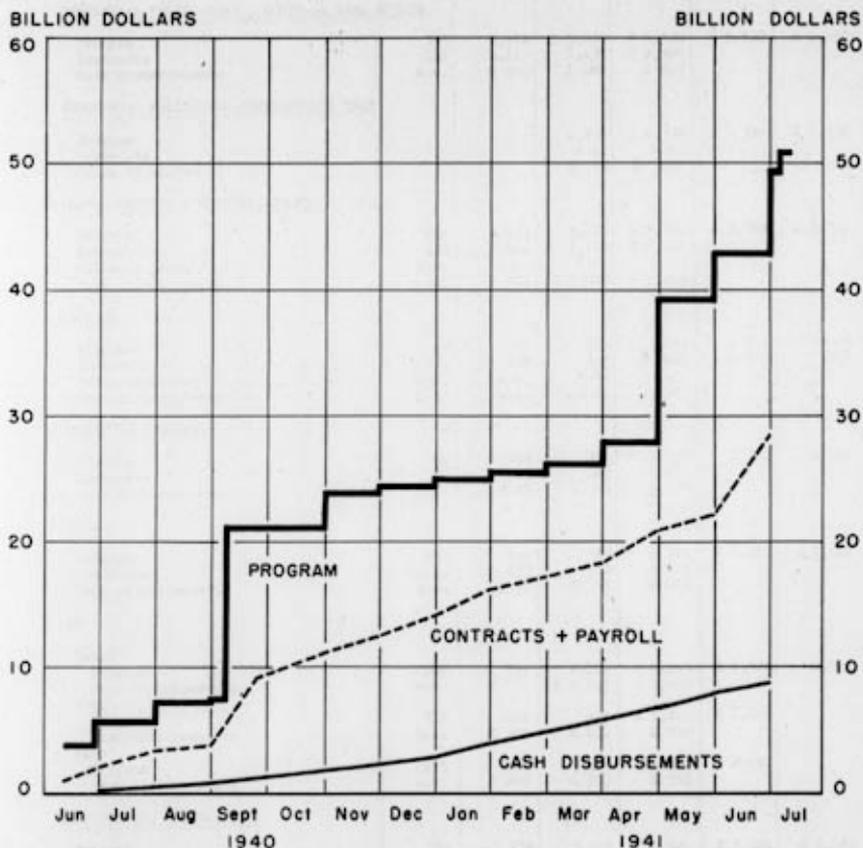
R Preliminary data.

£ Revised date.

n.a. Data not available.

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CHART I - ENACTED DEFENSE PROGRAM\*  
AND CONTRACT AWARDS FOR DEFENSE PURPOSES  
JUNE 11, 1940 - JULY 12, 1941<sup>‡</sup>



\* United States and British Programs.

‡ Revised.

## DEFENSE PROGRESS SERIES (Continued)

	1940		1941			
	July	January	May	June	Week July 5	Ending July 12
(Million dollars to date) *						
<u>MERCHANT SHIPS</u>						
Program	833	957	1,905	R 1,905	R 1,905	R 1,905
Contracts	n.s.	153	932	R 1,407		
Cash disbursements	n.s.	£ 151	£ 228	£ 254		
<u>INDUSTRIAL FACIL.-CONS., EQUIP., &amp; REAL ESTATE</u>						
Program	343	2,161	£ 5,030	R 5,530	R 5,530	R 5,530
Contracts	110	1,513	2,435	R 2,767		
Cash disbursements	n.s.	£ 269	£ 680	£ 827		
<u>INDUSTRIAL FACILITIES-CONSTRUCTION ONLY</u>						
Program			1,338	R 1,338	R 1,338	R 1,338
Contracts			n.s.	n.s.		
Value in place			£ 376	£ 553	n.s.	£ 620
<u>POSTS, DEPOTS, &amp; FORTIFICATIONS</u>						
Program	643	1,431	3,137	R 3,652	R 3,708	R 3,708
Contracts	230	802	1,518	R 2,215		
Value in place	n.s.	n.s.	n.s.			
Cash disbursements	10	£ 522	£ 1,297	£ 1,469		
<u>HOUSING</u>						
Program	40	290	495	495	R 645	R 645
Contracts	n.s.	128	245	R 283	R 283	295
Value in place	n.s.	n.s.	n.s.			
Cash disbursements	n.s.	n.s.	n.s.	n.s.		
<u>STOCKPILE PROGRAM</u>						
Program	60	588	954	£ 980	R 980	R 980
Contracts	50	276	458	£ 470		
Cash disbursements	n.s.	£ 65	£ 151	£ 179		
<u>OTHER</u>						
Program	283	534	869	R 922	R 1,140	R 1,140
Contracts	n.s.	133	193	R 515		
Cash disbursements	n.s.	£ 52	£ 125	£ 146		
<u>PAT</u>						
Total						
Program	502	794	1,120	R 2,345	R 2,355	2,355
Cash disbursements	n.s.	£ 531	£ 1,043	R 1,200		
Army						
Program	327	619	619	R 1,844	R 1,844	
Cash disbursements	n.s.	£ 303	£ 641	£ 750		
Navy						
Program	175	175	450	R 450	R 457	
Cash disbursements	n.s.	£ 205	£ 354	£ 395		
<u>SUBSISTENCE, TRAVEL, ETC.</u>						
Program	714	1,156	3,144	R 3,924	R 3,924	R 3,924
Cash disbursements	n.s.	£ 98	£ 212	£ 249		

\* Data are as of the close of the month or week nearest available date.

£ Preliminary data.

R Revised data.

n.s. Data not available.

(Continued on next page)

## DEFENSE PROGRESS SERIES (Continued)

	1940		1941			
	July	January	May	June	Week Ending	
					July 5	July 12
<b>VALUE OF FACIL. ON APPLIC. FOR CERT. OF NECESSITY</b>	(Million dollars to date)*					
Total			1,232	1,271		
Approved, private funds			747	774		
Approved, public funds			200	199		
Feeding			281	291		
<b>DEFENSE HOUSING</b>	(Number of dwelling units) *					
Fund allocations		56,528	106,053	110,298	120,368	120,368
Construction contracts awarded		36,191	72,334	78,830	78,830	81,421
Construction completed		1,314	14,414	21,768	23,193	25,888
<b>PRIORITY CERTIFICATES &amp; EXTENSIONS</b>	(Number)					
Total issued			217,282	298,949	320,404	331,749
<b>A G E N C I E S</b>						
<b>U. S. MILITARY</b>						
	(Million dollars to date) *					
<b>ARMY - Program</b>	2,620	8,377	13,135	R 20,345	R 20,352	R 20,352
Contracts + payroll	582	6,084	8,308	R 10,083		
Cash disbursements	78	E 1,345	E 3,332	R 3,868		
<b>NAVY - Program</b>	2,085	10,726	13,633	R 13,215	R 13,967	R 13,967
Contracts + payroll	1,515	5,951	8,178	R 11,228		
Cash disbursements	84	E 1,031	E 2,023	R 2,322		
<b>TOTAL- Program</b>	4,705	19,103	26,768	R 33,560	R 34,319	R 34,319
Contracts + payroll	2,097	11,935	16,486	R 21,311		
Cash disbursements	162	E 2,377	E 5,355	R 6,190		
<b>DEFENSE AID (Lend-Lease)</b>			7,000	7,000	7,000	7,000
Program			7,000	7,000	7,000	7,000
Allocations			4,277	R 4,771		
Contracts			n.a.	R 1,392		
Cash disbursements			E 7	R 21		
<b>MARITIME COMMISSION</b>						
Program	804	804	1,154	R 1,154	R 1,154	R 1,154
Contracts	n.a.	n.a.	810	R 810		
Cash disbursements	8	E 83	E 137	R 156		
<b>RFC AND SUBSIDIARIES</b>						
Program		1,166	2,767	R 2,794	R 2,794	R 2,794
Commitments		715	1,131	R 1,153		
Cash disbursements		E 72	E 271	R 333		
<b>BRITISH ORDERS</b>						
Program	1,282	3,426	E 3,692	R 3,669	R 3,669	R 3,669
Contracts	1,282	3,426	E 3,692	R 3,673	R 3,673	
Cash disbursements	396	E 1,538	E 1,994	R 2,081		
<b>OTHER AGENCIES</b>						
Program	565	1,002	1,380	R 1,431	R 1,849	R 1,849
Contracts	50	188	305	R 321		
Cash disbursements	5	E 114	E 281	R 345		

\* Data are as of the close of the month or week nearest available date.

E Preliminary data.

R Revised data.

n.a. Data not available.

(Continued on next page)

## DEFENSE PROGRESS SERIES (Continued)

	1940		1941		Week Ending	
	July	January	May	June	July 5	July 12

## STOCKPILE (Continued)

DELIVERIES	(Percent of value recommended)					
Antimony	0	13.1	38.8	40.5	40.5	41.9
Chrome Ore	3.7	14.3	14.3	18.6	18.9	19.2
Indus. Diamonds	0	0	.5	.3	.3	.3
Manganese	3.8	8.3	17.9	18.4	18.4	18.4
Manila Fiber	4.6	7.8	12.2	15.5	16.6	17.5
Mercury	0	10.2	5.9	5.9	5.9	5.9
Mica	0	2.5	10.0	14.5	18.2	18.2
Quartz Crystals	12.4	26.6	7.0	7.5	7.5	7.5
Quinine Sulphate	11.3	35.5	84.3	101.3	101.3	103.1
Rubber	11.6	34.3	47.7	53.0	53.2	40.8
Tin	3.7	15.3	25.1	26.5	26.9	27.4
Tungsten	5.7	48.9	50.0	41.4	41.4	41.4
Total	6.6	22.0	31.4	34.0	34.3	31.4

## ECONOMIC ACTIVITY RELATED TO DEFENSE \*

FED. RES. BD. PRODUCTION INDEXES	(Indexes 1935-39=100)					
Total industrial production	121	140	R 149			
Durable manufactures	132	170	R 177			
Non-durable manufactures	112	122	R 135			
Minerals	120	118	R 126			
SUR. FOR. & DOM. COM. MFGS. ORDERS, SHIPMENTS, INVENTORIES						
(Indexes)						
New orders, total (1/39=100)	127	176	R 207			
Shipments, total (1/39=100)	117	148	R 179			
Total inventories (12/31/38=100)	109.2	120.8	R 126.5			
Durable inventories (12/31/38=100)	111.9	129.7	R 137.6			
Non-durable inventories (12/31/38=100)	106.4	111.2	R 114.5			
BLS PRICE INDEXES						
(Indexes)						
Strategic materials (8/39=100)	E 123.6	126.1	E 138.7	138.5	139.3	139.6
Critical materials (8/39=100)	E 107.5	E 111.7	E 113.5	114.8	114.4	114.4
Basic commodities (8/39=100)	E 108.5	120.5	E 142.5	146.3	146.1	147.6
Machine tools (8/39=100)	108.7	114.6	117.3	117.7	n.a.	n.a.
All commodities (1926=100)	77.7	80.8	84.9	87.1	87.7	88.1
BLS COST OF LIVING INDEX (1935-39=100)	100.3	100.8	102.9			
TRANSPORTATION AND POWER						
(Averages)						
Freight carloadings (thous. per wk.)	707	684	832	909	740	876
Unloadings for export (cars per day)	1,502	1,352	1,479	E 1,441	1,330	1,635
Freight-car surplus, (thous. daily)	133	110	72	71	80	
Box cars	57	43	34	34	32	
Coal cars	47	42	16	17	27	
Elec. power prod. (Mil. kWh. wkly.)	2,964	3,333	3,323	R 3,100	2,870	3,141
NATIONAL INCOME						
(Billion dollars, annual rate)						
Total income payments	E 75.2	E 81.7	R 86.0			

\* Data are as of the close of the month or week nearest available date.  
 E Preliminary data. R Revised data. n.a. Data not available.  
 A Recommendation for this commodity was increased. R Stocks released.

(Continued on Next Page)

## DEFENSE PROGRESS SERIES (Continued)

	1940		1941			
	July	January	May	June	Week Ending	
					July 5	July 12

## PRODUCTION RATES &amp; TOTAL PRODUCTION OF DEFENSE EQUIPMENT\*

PRODUCTION RATE INDEXES	(Indexes, production in scheduled peak month=100)					
	1940 July	1941 January	1941 May	1941 June	1941 Week Ending July 5	1941 Week Ending July 12
Military airplanes	13.0	21.7	31.4	2 34.7		
Combat vehicles	n.a.	10.1	25.2	2 33.5		
Combat vessels	16.7	22.8	31.2	2 35.1		
Army-type guns, total	n.a.	22.0	36.4	2 38.4		
Field artillery	n.a.	7.1	14.3	2 14.6		
Antiaircraft guns	n.a.	19.7	28.1	2 23.0		
Infantry-supporting guns	n.a.	21.6	36.0	2 41.0		
TOTAL PRODUCTION INDEXES	(Indexes, cuml. since July 1940, program requirements=100)					
Military airplanes	0.5	4.4	9.2	2 10.7		
Combat vehicles	n.a.	3.4	7.3	2 9.3		
Combat vessels	5.8	9.3	12.4	2 13.5		
Army-type guns, total	n.a.	6.6	13.8	2 16.1		
Field artillery	n.a.	2.0	4.7	2 5.7		
Antiaircraft guns	n.a.	4.2	8.7	2 9.9		
Infantry-supporting guns	n.a.	9.2	19.2	2 22.3		

## INVENTORIES OF DEFENSE EQUIPMENT

	(Indexes as of 1st of month, U.S. requirements=100)					
	1940 July	1941 January	1941 May	1941 June	1941 Week Ending July 5	1941 Week Ending July 12
Military airplanes	7.0	8.6	n.a.	12.6	14.2	
Combat vehicles	n.a.	4.4	n.a.	8.0	8.8	
Combat vessels, delivered	37.7	36.0	n.a.	36.4	37.6	
Army-type guns, total	n.a.	5.7	n.a.	10.4	11.8	
Field artillery	n.a.	6.4	n.a.	9.2	9.7	
Antiaircraft guns	n.a.	6.9	n.a.	8.5	11.2	
Infantry-supporting guns	n.a.	4.6		12.0	13.1	

## STOCKPILES\*

PURCHASES	(Percent of value recommended)					
	1940 July	1941 January	1941 May	1941 June	1941 Week Ending July 5	1941 Week Ending July 12
Antimony	0	53.1	162.9	164.6	164.6	164.6
Chrome Ore	13.1	38.4	45.1	44.6	44.2	44.2
Indus. Diamonds	0	0	96.0	36.8	36.8	29.9
Manganese	12.7	133.1	176.6	180.3	183.2	181.9
Woolen Fiber	5.1	11.8	20.2	22.5	22.8	24.9
Mercury	0	56.1	14.2	14.2	14.2	14.2
Mica	0	11.4	35.8	38.0	38.0	38.0
Quartz Crystals	18.4	97.4	14.1	14.1	14.1	14.1
Quinine Sulphate	11.3	112.9	112.5	112.5	112.5	112.5
Rubber	14.4	47.6	61.9	67.6	70.9	57.9
Tin	6.5	33.2	63.3	63.3	66.1	66.1
Tungsten	5.5	221.7	621.8	640.1	640.1	838.1
Total		56.7	89.2	91.2	94.6	92.0
Total without excess	10.3	48.8	64.5	66.4	68.6	63.4

\* Data are as of the close of the month or week nearest available date.

P Preliminary data.

I Revised data.

n.a. Data not available.

R Recommendation for this commodity was increased.

2 Stocks released.

3 Adjustment of funds

(Continued on Next Page)

## DEFENSE PROGRESS SERIES (Continued)

	1940				1941		
	July	January	May	June	Week Ending		
					July 5	July 12	
<b>FEDERAL DEBT</b>	(Billion dollars, end of month)						
Net public debt	41.5	43.9	45.8	46.3			
<b>EMPLOYMENT</b>	(Thousand workers) *						
Total civil nonagricultural	35,454	36,621	38,278				
NPA employment	1,699	1,894	1,497	1,368	1,172		1,030
Defense							
Private, 18 major industries	1,660	2,036	2,332				
Priv. contractors, pub. constr.	13	448	362				
Public	± 155	± 203	220				
Total direct defense	1,828	2,687	2,914				
Deep-sea trade vessels	51	49	52				
<b>AVERAGE HOURS WORKED PER WEEK #</b>	(Hours)						
Machine tools	47.5	50.4	52.3				
Aircraft	42.0	44.7	45.2				
Shipbuilding	39.3	41.8	44.0				
<b>AVERAGE HOURLY EARNINGS #</b>	(Cents)						
Machine tools	76.8	79.6	82.4				
Aircraft	73.8	77.6	79.5				
Shipbuilding	86.2	89.7	92.6				

\* Data are as of the close of the month or week nearest available date.

† Preliminary data.

‡ Revised data.

n.a. Data not available.

# Bureau of Labor Statistics

(Continued on next page)



The President 1

# DEFENSE PROGRESS

NUMBER 49

JULY 25, 1941



OFFICE OF PRODUCTION MANAGEMENT  
BUREAU OF RESEARCH AND STATISTICS - STACY MAY, CHIEF

*This summary contains CONFIDENTIAL information affecting the defense of the United States. Revelation of its contents in any manner to unauthorized persons is prohibited by the Espionage Act.*

# DEFENSE      PROGRESS



BUREAU OF RESEARCH AND  
STATISTICS • STACY MAY, CHIEF

ECONOMIC ANALYSIS BRANCH  
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LESTER S. KELLOGG,  
ASSISTANT CHIEF & EDITOR

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● MONTHLY CONSTRUCTION OF MERCHANT SHIPPING in American yards in July 1942 will equal recent British, allied, and neutral shipping losses of 425 thousand gross tons per month. Construction in June 1941 was proceeding at one-fourth the rate expected in July 1942.	7
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## ESTIMATED REQUIREMENTS AND SUPPLIES OF 32 SELECTED COMMODITIES

*Shortages during 1941 are indicated for 15 of 32 important commodities. The supply of only one of these, magnesium, falls short of estimated direct 1941 military requirements while the supply position of aluminum is critical. Supplies of 21 commodities will be short in 1942. Surpluses of many of the remaining commodities are contingent upon the continued arrival of a large volume of imports.*

Estimated requirements and supplies for 1941 and 1942 are now available for 32 commodities. These include the revised estimates of the requirements and supplies of 22 commodities previously shown and estimates for 10 additional commodities.<sup>A</sup>

Chart 1 shows that, of the 32 commodities, shortages are indicated for 15 in 1941. Included in the 15 are 8 of the 18 metals shown in the chart. Only two of the 32 commodities are not subject to export control, viz, calf and kip skins, sheep and lamb skins. As seen in Chart 2, shortages are indicated for 21 commodities in 1942, 6 more than in 1941. The increase in the number of shortages occurs principally in the metals group. For 1942, shortages are indicated for 13 out of the 18 metals.

However, the present prospect of an apparent surplus of estimated supply over estimated requirements does not mean that no shortage will develop. In many cases, the indicated surpluses are contingent upon the continued arrival of a large volume of imports, as in the case of antimony, chrome, cobalt, graphite,

mica, rubber, silk, tin, wool, etc. They are also contingent upon no upward revision in military requirements.

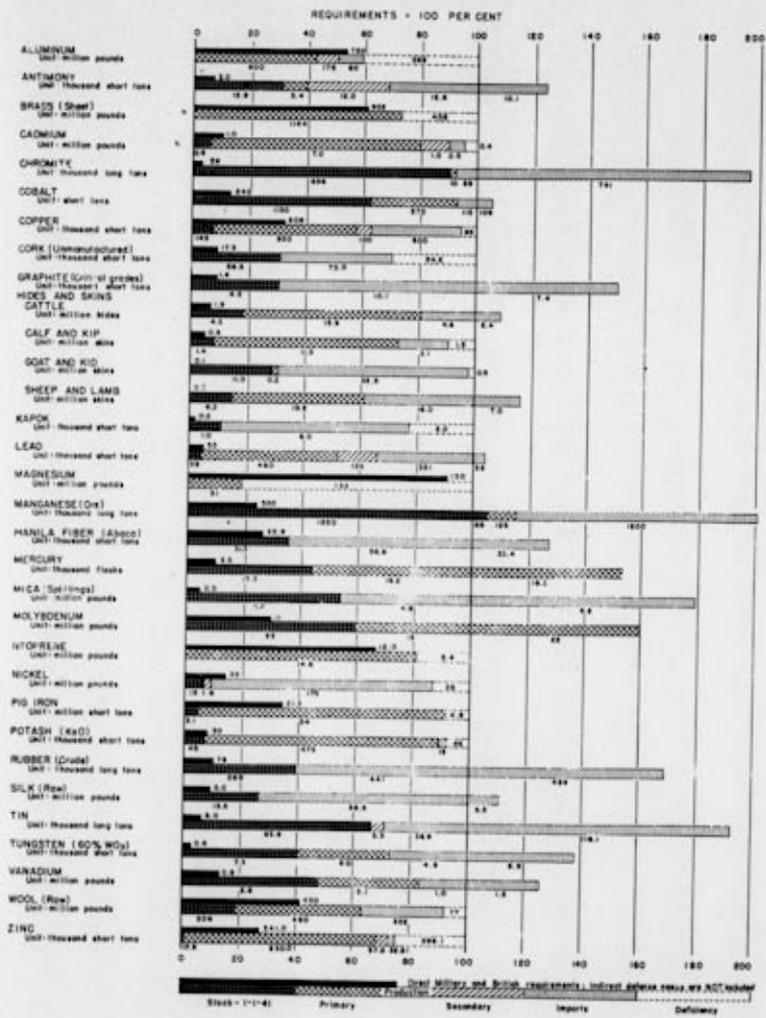
The estimate of total requirements is taken as 100 percent in each case and is shown by the heavy vertical line. Direct military requirements are shown separately by means of the upper black bar. The estimate of supply is shown in the lower bar in four segments: stocks on January 1, 1941, primary production, secondary production, and imports.

For 1941, the estimated supplies of 30 commodities appear sufficient to meet present direct military requirements. There is an indicated deficiency of 1941 supply for direct military requirements in the case of magnesium, while the supply position of aluminum for the balance of this year is critical. For 1942, the same relationships exist between estimated direct military requirements and estimated supplies.

The indicated prospect of a

<sup>A</sup> Defense Progress, No. 46, pp. 14-17.

CHART I - 1941 SUPPLY AND REQUIREMENTS  
32 SELECTED COMMODITIES



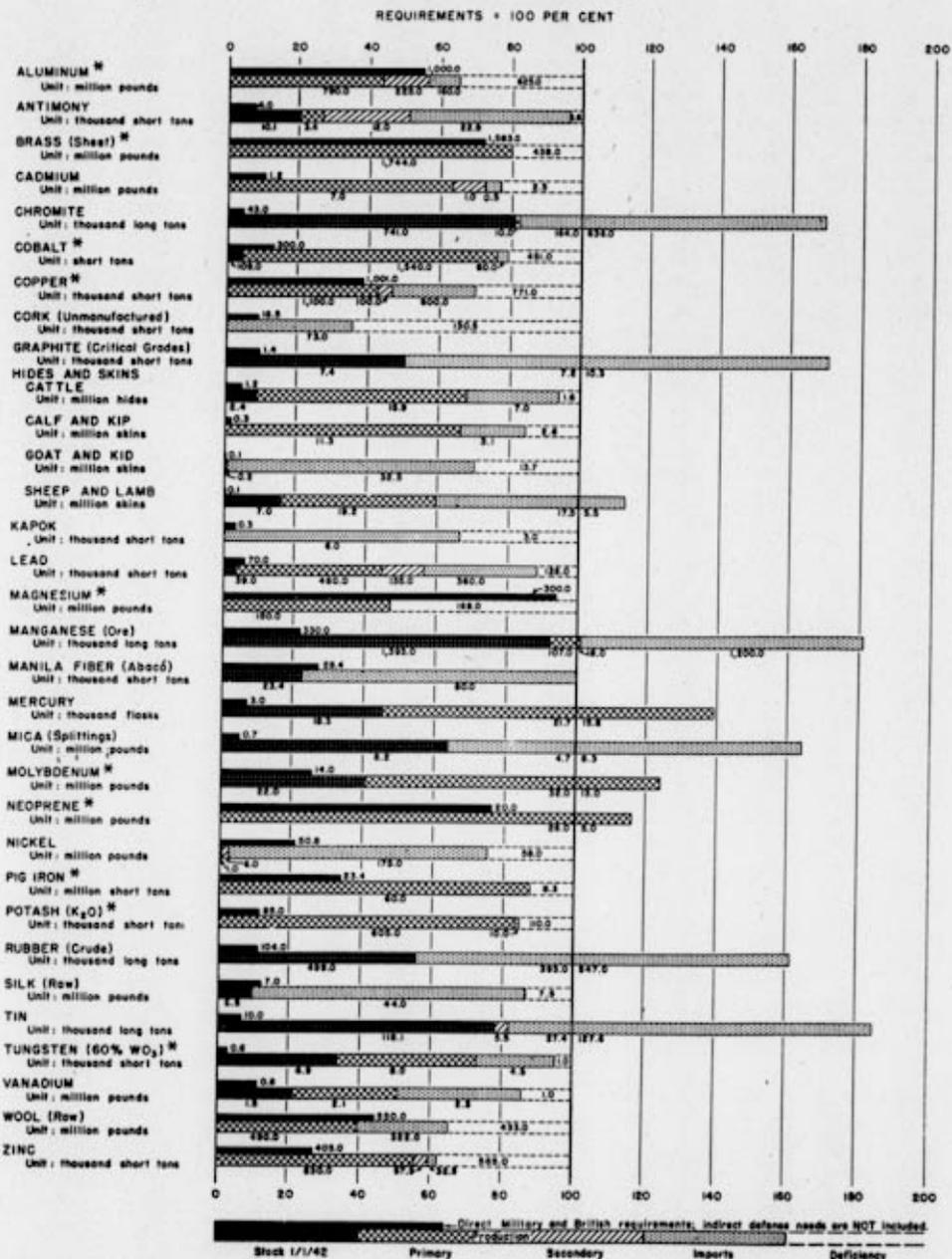
surplus of supply over direct military requirements in any one year does not imply that the balance is available for nondefense purposes. In addition to direct military requirements, there are often extensive indirect military requirements such as steel to build freight cars to transport military supplies. Moreover, where the supplies are dependent in large part upon imports, there is the need for conserving supply in case such imports are reduced.

The accompanying table shows the commodities to which priority controls have already been applied. 20 out of the 32 commodities have some form of priority control. 10 of the 20 are subject to the allocation-of-supply form of control as established by the various M-orders, and 9 of them are subject to the mild form of inventory control established by General Metals Order Number 1. One commodity (pig iron) is subject both to inventory and delivery controls.

## PRIORITY CONTROL OF 32 SELECTED COMMODITIES

COMMODITY	SURPLUS(+) OR DEFICIENCY (-) OF SUPPLY INDICATED FOR 1941	TYPE OF PRIORITY CONTROL	ORDER NUMBER	DATE EFFECTIVE
ALUMINUM	-	ALLOCATION	M-1	3/21/41
ANTIMONY	+	INVENTORY	GENERAL METALS *1	5/ 1/41
BRASS (SHEET)	-	NONE		
CADMIUM	-	INVENTORY	GENERAL METALS *1	5/ 1/41
CHRONITE	+	ALLOCATION	M-18	7/ 7/41
COBALT	+	INVENTORY	GENERAL METALS *1	5/ 1/41
COPPER	-	ALLOCATION	M-9	5/29/41
CORK (UNMANUFACTURED)	-	ALLOCATION	M-8	5/31/41
GRAPHITE (CRITICAL GRADES)	+	NONE		
HIDES AND SKINS				
CATTLE	+	NONE		
CALF AND KIP	-	NONE		
GOAT AND KID	-	NONE		
SHEEP AND LAMB	+	NONE		
KAPOK	-	NONE		
LEAD	+	INVENTORY	GENERAL METALS *1	5/ 1/41
MAGNESIUM	-	ALLOCATION	M-2	3/24/41
MANGANESE (ORE)	+	INVENTORY	GENERAL METALS *1	5/ 1/41
MANILA FIBRE (ABACA)	+	NONE		
MERCURY	+	INVENTORY	GENERAL METALS *1	5/ 1/41
MICA	+	NONE		
MOLYBDENUM	+	INVENTORY	GENERAL METALS *1	5/ 1/41
NEOPRENE	-	ALLOCATION	M-4	3/28/41
NICKEL	-	ALLOCATION	M-6	5/15/41
PIG IRON	-	INVENTORY AND DELIVERY	GENERAL METALS *1 AND GENERAL STEEL PREFERENCE DELIVERY ORDER	5/1/41 & 5/29/41
POTASH (K <sub>2</sub> O)	-	NONE		
RUBBER (CRUDE)	+	ALLOCATION	M-15	7/ 1/41
SILK	+	NONE		
TIN	+	INVENTORY	GENERAL METALS *1	5/ 1/41
TUNGSTEN (60% WO <sub>3</sub> )	+	ALLOCATION	M-3	3/26/41
VANADIUM	+	INVENTORY	GENERAL METALS *1	5/ 1/41
WOOL (RAW)	-	NONE		
ZINC	-	ALLOCATION	M-11	7/ 1/41

CHART 2 - 1942 SUPPLY AND REQUIREMENTS  
32 SELECTED COMMODITIES



\* New facilities, projected and building, increase production estimates over 1941.

## MERCHANT SHIP PRODUCTION IN THE UNITED STATES

*Monthly construction of merchant shipping in American yards in July 1942 will equal recent British, allied, and neutral shipping losses at 425 thousand gross tons per month. Construction in June 1941 was proceeding at one-fourth the rate expected in July 1942.*

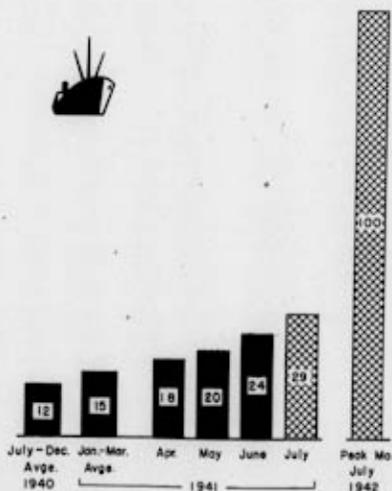
During June 1941, the rate of construction of merchant shipping was about one-fourth of the scheduled peak rate. Merchant ship construction work should reach its peak in July 1942. It is estimated that the amount of work done in June 1941 is equivalent to the complete construction of about 90 thousand gross tons of shipping. This is less than one percent of the 10-million-ton construction program now facing American yards. The bulk of the construction work under the program is scheduled for 1942 and 1943, since all the additional ways will not be available until 1942.

A monthly production rate index for merchant ship production is presented in Chart 1. This is a companion to the production rate indexes covering planes, Naval ships, and ordnance materiel previously presented.<sup>a</sup> It measures construction work done each month in relation to the peak month as 100. This index covers the construction of all ocean-going cargo vessels of 5,000 gross tons or over.<sup>b</sup> As can be seen in the chart, the monthly production rate increased from an average of 12

between July and December 1940 to 24 in June 1941. The main factor in this rise in the monthly rate has been the large increase in the number of shipways available for constructing ocean-going tonnage. However, it will be another year before all the planned new shipways are constructed and before the peak rate can be reached. When the peak is reached, the monthly construction

CHART 1 - MERCHANT SHIPS  
MONTHLY PRODUCTION RATE

INDEX NUMBERS



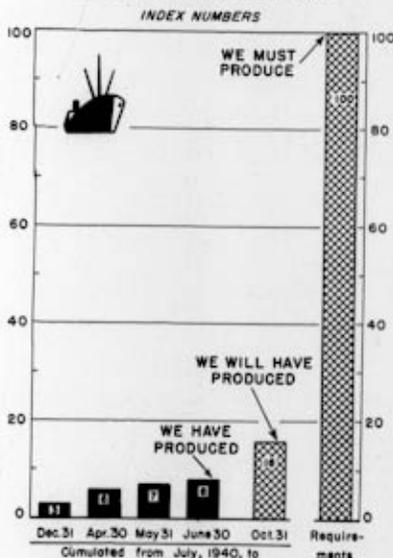
<sup>a</sup> Issue 42, pp. 2-6; Issue 47, pp. 2-8.

<sup>b</sup> No ocean-going cargo vessels of less than 5,000 gross tons are being constructed or planned at present.

rate should be equivalent to the completion of more than 450 thousand gross tons per month. The indexes of merchant ship construction represent work done rather than deliveries of completed vessels. Peak deliveries of more than two ships a day will not be reached until the first quarter of 1943. Scheduled production for July 1941 should raise the production rate index to 29, approximately three times as high as it was a year ago.

In Chart 2 there is presented an index measuring total work done on constructing merchant ships in the United States since July 1940. At the end of the first six months (December 1940), only 3 percent of

CHART 2 - MERCHANT SHIPS  
TOTAL PRODUCTION



the work required to build the projected 10 million tons of ships had been finished. By the end of June, this had increased to 8 percent. By next October this index should be 16 percent, or double the present level. The program calls for constructing more new tonnage than the entire American ocean-going merchant fleet prior to the emergency, viz, 10 million tons compared to 7.6 million tons. The job may be expected to be completed early in 1944 and should be half finished by the middle of 1942.

On July 1, 1940, it was estimated that the United States Merchant Marine consisted of some 7.6 million tons of ocean-going shipping. As hostilities spread, vessels were sold or transferred to Great Britain, Panama, etc., for the purpose of rendering aid to Great Britain and because of the restriction on American flag vessels against entering belligerent waters. Hence, despite delivery during the year of 620 thousand gross tons, on June 30, 1941, the American fleet had dropped to 6.9 million tons.

The speed at which American yards can turn out ocean-going cargo vessels is one of the decisive factors in determining the final outcome of the present war. Peak American production scheduled for July 1942 is 450 thousand tons. This may be compared with British, Allied, and neutral shipping losses which have averaged 425 thousand tons during the first half of 1941. Plans are currently being developed to speed up American production, and the peak rate may be reached earlier than would be indicated by the schedules here shown.

## CAN THE UNITED STATES AID RUSSIA THROUGH EXPORTS ?

*Little immediate aid can reach Russia from the United States. If Russia is able to hold out until late fall, the United States will be in a position to furnish many of the materials required by that country.*

The prospects of immediate economic aid to Russia from the United States are not bright. At least two months would be required before material shipped from our West Coast could reach the Russian Western Front.

Even if Russian resistance is maintained beyond this period, American aid will be limited by the requirements of our own forces and by those of Great Britain. However, the United States should be able to extend substantial material aid by the late fall.

To the extent that aid is possible, three main questions arise: (1) What material aid does Russia need? (2) How can such aid be transported to Russia? (3) How can Russia pay us for it?

What material aid does Russia need? Russia's requirements fall into two groups: (1) her most urgent immediate requirements are supplies of finished military equipment such as airplanes, arms, ammunition, medical supplies, etc.; (2) over a longer term her requirements include supplies of raw materials such as antimony, copper, zinc, molybdenum, tin, tungsten, nickel, and copper; and industrial equipment such as machine tools, mining and oil well

machinery, trucks and tractors, railway equipment and supplies. The United States in the past has supplied quantities of most of these materials to Russia. Other required materials, such as rubber and tin, may be obtained from the British Empire.

Russia has within its borders most of the resources for a self-contained industrialized nation, adequate for carrying on modern warfare. It lacks, however, from 90 to 100 percent of its requirements of natural rubber, molybdenum, nickel, tungsten, antimony, and tin, and is seriously deficient in aluminum, copper, and zinc. In spite of the efforts of the last thirteen years to become self-contained, industrial equipment such as machine tools and construction machinery is also needed and has been imported in substantial quantities by Russia in recent years.

Russia's import requirements may be indicated by the principal exports to Russia from the United States. United States exports during 1938 and 1940 are shown in the accompanying table.

Most of the materials included in the table have been under export control for the past six months, and,

PRINCIPAL UNITED STATES EXPORTS TO RUSSIA  
1938 and 1940

	1938	1940
	(Million Dollars)	
Aircraft and parts	5.1	.3
Steel sheets, black	3.0	.3
Sole leather, bands, backs, and sides	<u>a</u>	2.1
Wheat	<u>a</u>	3.0
Cotton	<u>a</u>	7.8
Gasoline and other petroleum motor fuel, in bulk	2.2	1.8
Casing and oil-line pipe, seamless	<u>a</u>	2.4
Refined copper in ingots, bars, and other forms	<u>a</u>	14.0
Brass and bronze, plates and sheets	<u>a</u>	5.0
Internal-combustion engines	.7	2.0
Engine accessories and parts	<u>a</u>	1.2
Construction and conveying machinery	.1	3.8
Well and refinery machinery	.6	2.7
Metal-working machinery, <u>total</u>	35.1	23.8
Other machinery and vehicles	4.1	3.5

a Not separately classified or less than \$100,000.

as a result, United States exports during the first five months of 1941 were \$15 million below the exports for the corresponding period of 1940. Since the present Russo-German conflict started, however, export restrictions have been lifted on some materials (such as machine tools) needed by Russia.

How can material aid be transported to Russia? The U.S.S.R. has requested export aid from the United States, and arrangements are being made to expedite shipments. However, materials which may be spared from our own defense program and our obligations for aid to Britain will be difficult to deliver to the U.S.S.R. Four possible routes are: (1) The Trans-Siberian Railway, via Vladivostok, is the chief route by which

the U.S.S.R. carries on its foreign trade at present. It takes from 6 to 10 weeks to ship products from the United States to European Russia by this route. If it should be closed, three alternate routes have been suggested. (2) One suggested alternate route is by way of Bombay. This requires transshipment by truck about a thousand miles across the Khyber Pass to the nearest Russian railhead; then transshipment some 1,500 miles to the front. (3) Another suggested route is by way of the Persian Gulf to Basra, and thence across Iran. This means some 500 or 600 miles by rail to the Caspian Sea, then transshipment by water to the northwest corner of the Caspian, and finally transshipment by rail for possibly a thousand miles in Russia. (4) There is also

the northern water route either to Murmansk or to Archangel and thence by rail or canal southward. This route is open only a few months of the year. The railroad from Murmansk to Leningrad is in the present combat zone. Other alternate routes are still less practical.

How can Russia pay us for aid?

Since the conflict with Germany began, restrictions on credits of some \$40 million which Russia has in the

United States have been lifted. Russia produces about \$175 million of gold annually and it is reported that she has comparatively large reserves (possibly \$1 billion) which could be utilized to pay for exports. Also, loans might be secured by contracts for future delivery of materials, such as manganese. The problem of financing aid to Russia would not seem to be particularly difficult, even if defense aid is not provided.

## DEFENSE PROGRESS SERIES

	1940		1941			
	July	January	May	June	Week Ending	
					July 12	July 19

## TOTAL UNITED STATES DEFENSE PROGRAM \*

UNITED STATES ARMED FORCES	(Thousands, officers and enlisted men)					
Army	289	693	1,362	1,448	1,463	1,477
Navy and Marine Corps	196	271	311	327		
Total active strength	485	964	1,673	1,775		

## FINANCIAL PROGRAM E

PROGRAM	(Million dollars to date)					
Total	7,353	25,501	E 42,761	E 49,608	E 50,754	E 50,794
Ex British orders	6,072	22,075	E 39,055	E 45,939	E 47,116	E 47,156
<b>CONTRACTS</b>						
Total	3,287	15,720	21,213	E 26,032		
Ex British orders	2,147	12,294	17,507	E 22,359		
Plus pay, sub., travel, etc.	3,429	16,364	22,438	E 27,396		
<b>CASH DISBURSEMENTS</b>						
Ex pay, sub., travel, etc.	n.a.	E 3,554	E 6,791	E 7,677		
Ex British orders, pay, sub., travel, etc.	n.a.	E 2,016	E 4,797	E 5,596		
Total	571	E 4,183	E 8,046	E 9,126	n.a.	E 9,828
<b>OBJECTS</b>						
<b>AIRPLANES, ENGINES, ETC.</b>						
Program	1,564	4,582	8,214	E 11,465	E 11,957	E 11,957
Contracts	889	3,852	4,655	E 6,122		
Cash disbursements	n.a.	E 855	E 1,331	E 1,439		
<b>NAVAL SHIPS &amp; PARTS</b>						
Program	683	6,139	6,785	E 6,430	E 6,586	E 6,586
Contracts	1,207	4,500	4,548	E 5,000		
Cash disbursements	29	E 317	E 588	E 660		
<b>ORDNANCE (Incl. Naval Ordnance)</b>						
Program	918	4,748	8,127	E 8,034	E 8,051	E 8,051
Contracts	367	2,511	3,992	E 4,738		
Cash disbursements	n.a.	E 432	E 838	E 975		
<b>OTHER MUNITIONS</b>						
Program	770	2,121	2,981	E 3,925	E 3,975	E 3,975
Contracts	434	1,852	2,237	E 2,540		
Cash disbursements	n.a.	E 891	E 1,552	E 1,728		
<b>TOTAL MUNITIONS</b>						
Program	3,935	17,590	26,107	E 29,854	E 30,569	E 30,569
Contracts	2,897	12,715	15,432	E 19,664		
Cash disbursements	n.a.	E 2,495	E 4,309	E 4,802		

\* Data are as of the close of the month or week nearest available date.

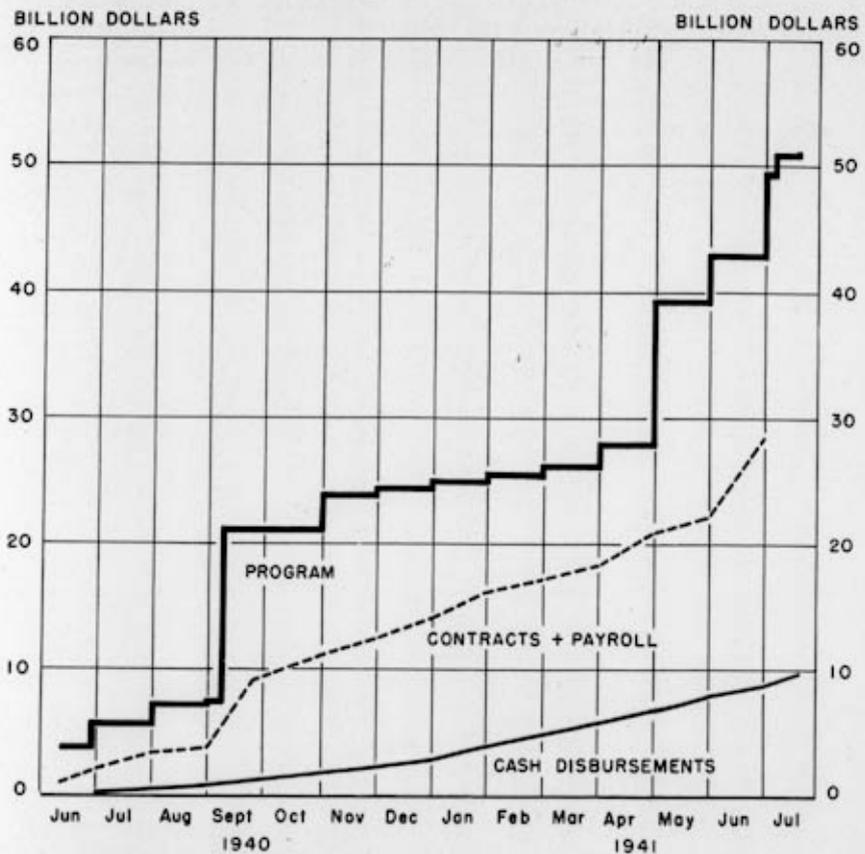
E Preliminary data.

E Revised data.

n.a. Data not available.

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CHART I - ENACTED DEFENSE PROGRAM \*  
AND CONTRACT AWARDS FOR DEFENSE PURPOSES  
JUNE 11, 1940 - JULY 19, 1941<sup>†</sup>



\* United States and British Programs.  
† Revised.

## DEFENSE PROGRESS SERIES (Continued)

	1940		1941			
	July	January	May	June	Week Ending	
					July 12	July 19
(Million dollars to date) *						
<u>MERCHANT SHIPS</u>						
Program	833	957	1,905	R 1,905	R 1,905	R 1,905
Contracts	n.a.	153	932	R 1,407		
Cash disbursements	n.a.	£ 151	£ 228	R 254		
<u>INDUSTRIAL FACIL.-CONS., EQUIP., &amp; REAL ESTATE</u>						
Program	343	2,161	£ 5,030	R 5,530	R 5,528	R 5,568
Contracts	110	1,513	2,435	R 2,767		
Cash disbursements	n.a.	£ 269	£ 680	R 827		
<u>INDUSTRIAL FACILITIES-CONSTRUCTION ONLY</u>						
Program			£ 1,429	£ 1,607	R 1,607	R 1,607
Contracts			n.a.	n.a.		
Value in place			£ 406	£ 575	R 649	R 692
<u>POSTS, DEPOTS, &amp; FORTIFICATIONS</u>						
Program	643	1,431	3,137	R 3,652	R 3,708	R 3,708
Contracts	230	802	1,518	R 2,212		
Cash disbursements	10	£ 522	£ 1,297	R 1,469		
<u>HOUSING</u>						
Program	40	290	495	495	R 645	R 645
Contracts	n.a.	128	245	283	295	309
Cash disbursements	n.a.	n.a.	n.a.	n.a.		
<u>STOCKPILE PROGRAM</u>						
Program	60	588	954	R 980	R 980	R 980
Contracts	50	276	458	R 470		
Cash disbursements	n.a.	£ 65	£ 151	R 179		
<u>OTHER EQUIPMENT &amp; SUPPLIES</u>						
Program	283	534	869	R 922	1,140	R 1,140
Contracts	n.a.	133	193	R 515		
Cash disbursements	n.a.	£ 52	£ 125	R 147		
<u>PAY</u>						
Total						
Program	502	794	1,120	R 2,345	R 2,355	R 2,355
Cash disbursements	n.a.	£ 531	£ 1,043	R 1,200		
Army						
Program	327	619	619	R 1,844	R 1,844	R 1,844
Cash disbursements	n.a.	£ 303	£ 641	R 750		
Navy						
Program	175	175	450	R 450	R 457	R 457
Cash disbursements	n.a.	£ 205	£ 354	R 395		
<u>SUBSISTENCE, TRAVEL, ETC.</u>						
Program	714	1,156	3,144	R 3,924	R 3,924	R 3,924
Cash disbursements	n.a.	£ 98	£ 212	R 249		

\* Data are as of the close of the month or week nearest available date.

R Preliminary data.

£ Revised data.

n.a. Data not available.

(Continued on next page)

## DEFENSE PROGRAM SERIES (Continued)

	1940		1941			
	July	January	May	June	Week Ending	
					July 12	July 19
<b>VALUE OF FACIL. ON APPLIC. FOR CRT. OF NECESSITY</b>						
	(Million dollars to date)*					
Total			1,271			
Approved, private funds			774			
Approved, public funds			199			
Pending			291			
<b>DEFENSE HOUSING</b>						
	(Number of dwelling units) *					
Fund allocations		56,528	106,053	110,298	120,368	120,568
Construction contracts awarded		36,191	72,334	78,830	81,421	85,375
Construction completed		1,314	14,414	21,768	25,888	27,850
<b>PRIORITY CERTIFICATES &amp; EXTENSIONS</b>						
	(Number)					
Total issued			217,282	298,949	331,749	372,502
<b>AGENCIES</b>						
<b>U. S. MILITARY</b>						
	(Million dollars to date) *					
<b>ARMY</b> - Program	2,620	8,377	13,135	R 20,345	R 20,352	R 20,352
Contracts + payroll	582	6,084	8,308	R 10,083		
Cash disbursements	78	R 1,345	R 3,332	R 3,868		R 4,200
<b>NAVY</b> - Program	2,085	10,726	13,633	R 13,215	R 13,967	R 13,967
Contracts + payroll	1,515	5,951	8,178	R 9,964		
Cash disbursements	84	R 1,031	R 2,023	R 2,322		R 2,525
<b>TOTAL</b> - Program	4,705	19,103	26,768	R 33,560	R 34,319	R 34,319
Contracts + payroll	2,097	11,935	16,486	R 20,047		
Cash disbursements	162	R 2,377	R 5,355	R 6,190		R 6,725
<b>DEFENSE AID (Lend-Lease)</b>						
Program			7,000	7,000	7,000	7,000
Allocations			4,277	R 4,771		
Contracts			n.a.	R 1,392		
Cash disbursements			R 7	R 21		R 48
<b>MARITIME COMMISSION</b>						
Program	804	804	1,154	R 1,154	R 1,154	R 1,154
Contracts	n.a.	n.a.	810	R 810		
Cash disbursements	8	R 83	R 137	R 156		R 170
<b>RFC AND SUBSIDIARIES</b>						
Program		1,166	2,767	R 2,794	R 2,794	R 2,794
Commitments		715	1,131	R 1,153		
Cash disbursements		R 72	R 271	R 333		R 375
<b>BRITISH ORDERS</b>						
Program	1,282	3,426	R 3,692	R 3,669	R 3,638	R 3,638
Contracts	1,282	3,426	R 3,692	R 3,673		
Cash disbursements	396	R 1,538	R 1,994	R 2,081		R 2,125
<b>OTHER AGENCIES</b>						
Program	565	1,002	1,380	R 1,431	R 1,849	R 1,889
Contracts	50	188	305	R 321		
Cash disbursements	5	R 114	R 481	R 345		R 385

\* Data are as of the close of the month or week nearest available date.

R Preliminary data.

R Revised data.

n.a. Data not available.

(Continued on next page)

## DEFENSE PROGRESS SERIES (Continued)

	1940		1941		
	July	January	May	June	Week Ending July 26 July 19

## DEFENSE EQUIPMENT INDEXES \*

## PRODUCTION RATE INDEXES

	(Indexes, production in scheduled peak month=100)				
Military airplanes	13.0	21.7	31.4	E 34.9	
Combat vehicles	n.a.	10.1	25.2	E 31.8	
Combat vessels	16.7	22.8	31.2	E 33.9	
Army-type guns, total	n.a.	22.0	36.4	E 38.7	
Field artillery	n.a.	7.1	14.3	E 15.0	
Antiaircraft guns	n.a.	19.7	28.1	E 38.1	
Infantry-supporting guns	n.a.	21.6	36.0	E 36.2	
Merchant ships	10.3	14.4	20.3	E 24.0	

## TOTAL PRODUCTION INDEXES

	(Indexes, cuml. since July 1940, program requirements=100)				
Military airplanes	0.5	4.4	9.2	E 10.7	
Combat vehicles	n.a.	3.4	7.3	E 9.2	
Combat vessels	5.8	9.3	12.4	E 13.4	
Army-type guns, total	n.a.	6.6	13.8	E 16.0	
Field artillery	n.a.	2.0	4.7	E 5.7	
Antiaircraft guns	n.a.	4.2	8.7	E 10.6	
Infantry-supporting guns	n.a.	9.2	19.2	E 22.0	
Merchant ships	0.5	4.0	7.2	E 8.3	

## U. S. INVENTORIES

	(Indexes as of 1st of month, U. S. requirements=100)				
Military airplanes	7.0	8.6	n.a.	12.6	A 14.2
Combat vehicles	n.a.	4.4	n.a.	8.0	8.8
Combat vessels, delivered	37.7	36.0	n.a.	36.4	37.6
Army-type guns, total	n.a.	5.7	n.a.	10.4	11.8
Field artillery	n.a.	6.4	n.a.	9.2	9.7
Antiaircraft guns	n.a.	6.9	n.a.	8.5	11.2
Infantry-supporting guns	n.a.	4.6	n.a.	12.0	13.1
Merchant ships	54.1	n.a.	n.a.	n.a.	49.0

## STOCKPILE \*

PURCHASES	(Percent of value recommended)					
Antimony	0	53.1	162.9	164.6	164.6	164.6
Chromite Ore	13.1	38.4	A 45.1	44.6	44.2	44.7
Indus. Diamonds	0	0	96.0	36.8	29.9	26.6
Manganese	12.7	133.1	176.6	180.3	181.9	185.4
Manila Fiber	5.1	11.8	20.2	22.5	24.9	24.9
Mercury	0	56.1	B 14.2	14.2	14.2	26.2
Mica	0	11.4	B 32.8	38.0	38.0	38.0
Quartz Crystals	18.4	97.4	B 14.1	14.1	14.1	14.1
Quinine Sulphate	11.3	112.9	112.5	112.5	112.5	112.5
Rubber	14.4	47.6	61.9	67.6	57.9	60.8
Tin	6.5	33.2	63.3	63.3	66.1	66.1
Tungsten	5.5	221.7	621.8	640.1	838.1	A 638.5
Total		56.7	89.2	91.2	92.0	88.2
Total without excess	10.3	48.8	B 64.5	66.4	63.4	64.7

\* Data are as of the close of the month or week nearest available date.

B Preliminary data.

E Revised data.

n.a. Data not available.

A July inventories data are as of 1st of the month.

B Recommendation for this commodity was increased.

E Stocks released.

A Decrease due to downward correction of previous report and cancellation of contract

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## DEFENSE PROGRESS SERIES (Continued)

	1940		1941		Week Ending	
	July	January	May	June	July 12	July 19

## STOCKPILE\* (Continued)

DELIVERIES	(Percent of value recommended)					
	1940	1941	1941	1941	1941	1941
Antimony	0	13.1	38.8	40.5	41.9	41.9
Chrome Ore	3.7	14.3	14.3	18.6	19.2	19.5
Indus. Diamonds	0	0	.5	.3	.3	0.3
Manganese	3.8	8.3	17.9	18.4	18.4	18.4
Manila Fiber	4.6	7.8	12.2	15.5	17.5	17.7
Mercury	0	10.2	5.9	5.9	5.9	5.9
Mica	0	2.5	10.0	14.5	18.2	22.1
Quartz Crystals	12.4	26.6	7.0	7.5	7.5	7.5
Quinine Sulphate	11.3	35.5	84.3	101.3	103.1	103.1
Rubber	11.6	34.3	47.7	53.0	40.8	41.0
Tin	3.7	15.3	25.1	26.5	27.4	27.7
Tungsten	5.7	48.9	50.0	41.4	41.4	41.4
Total	6.6	22.0	31.4	34.0	31.4	31.7

## ECONOMIC ACTIVITY RELATED TO DEFENSE \*

FED. RES. BD. PRODUCTION INDEXES	(Indexes 1935-39=100)					
	1940	1941	1941	1941	1941	1941
Total industrial production	121	140	150	156		
Durable manufactures	132	170	176	188		
Non-durable manufactures	112	122	136	137		
Minerals	120	118	127	132		
BUR. FOR. & DOM. COM. MFGS. ORDERS, SHIPMENTS, INVENTORIES	(Indexes)					
	1940	1941	1941	1941	1941	1941
New orders, total (1/39=100)	127	176	207			
Shipments, total (1/39=100)	117	148	179			
Total inventories (12/31/38=100)	109.2	120.8	126.5			
Durable inventories (12/31/38=100)	111.9	129.7	137.6			
Non-durable inventories (12/31/38=100)	106.4	111.2	114.5			
BLS PRICE INDEXES	(Indexes)					
	1940	1941	1941	1941	1941	1941
Strategic materials (8/39=100)	123.6	126.1	138.7	138.5	139.6	140.0
Critical materials (8/39=100)	107.5	111.7	113.5	114.8	114.4	115.3
Basic commodities (8/39=100)	108.5	120.5	142.5	146.3	147.6	148.4
Machine tools (8/39=100)	108.7	114.6	117.3	117.7	n.a.	n.a.
All commodities (1926=100)	77.7	80.8	84.9	87.1	88.1	88.3
BLS COST OF LIVING INDEX (1935-39=100)	100.3	100.8	102.9	104.6		
TRANSPORTATION AND POWER	(Averages)					
	1940	1941	1941	1941	1941	1941
Freight carloadings (thous. per wk.)	707	684	832	909	876	899
Unloadings for export (cars per day)	1,502	1,352	1,479	1,441	1,635	1,702
Freight-car surplus, (thous. daily)	133	110	72	71	87	
Box cars	57	43	34	34	31	
Coal cars	47	42	16	17	36	
Elec. power prod. (Mll. kw. wkly.)	2,964	3,333	3,323	3,100	3,141	3,163
NATIONAL INCOME	(Billion dollars, annual rate)					
	1940	1941	1941	1941	1941	1941
Total income payments	75.2	81.7	86.0			

\* Data are as of the close of the month or week nearest available date.  
 † Preliminary data. ‡ Revised data. n.a. Data not available.  
 § Recommendation for this commodity was increased. ¶ Stocks released.

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## DEFENSE PROGRESS SERIES (Continued)

	1940				1941	
	July	January	May	June	Week Ending	
					July 12	July 19
<b>FEDERAL DEBT</b>						
	(Billion dollars, end of month)					
Net public debt	41.5	43.9	45.8	46.3		
<b>EMPLOYMENT</b>						
	(Thousand workers) *					
Total civil nonagricultural	35,454	36,621	38,278			
WPA employment	1,699	1,894	1,497	1,368	1,030	1,016
Defense						
Private, 18 major industries	1,660	2,036	2,332			
Priv. contractors, pub. constr.	13	448	362			
Public	155	203	220			
Total direct defense	1,828	2,687	2,914			
Deep-sea merchant vessels	51	49	52			
<b>UNITED STATES FOREIGN TRADE</b>						
<b>EXPORTS</b>						
	(Million dollars)					
Total exports	317	325	385			
Exports by destination						
United Kingdom	108	117	103			
Canada	65	62	81			
British Asia	24	28	35			
China	10	8	16			
Latin America	58	59	85			
Other democratic dominated areas	11	21	34			
Russia	6	3	**			
Portugal & Spain	4	2	3			
Axis & Axis dominated areas	21	18	12			
All other	8	8	15			
Exports licensed	9.7	37.0	44.0			
				(Percent)		
<b>IMPORTS</b>						
	(Million dollars)					
Imports for consumption	218	224	281			
Imports by origin						
United Kingdom	16	10	13			
Canada	37	35	48			
British Asia	55	63	76			
China	10	5	8			
Latin America	52	67	88			
Other democratic dominated areas	13	10	9			
Russia	1	2	3			
Portugal & Spain	2	2	3			
Axis & Axis dominated areas	23	20	19			
All other	9	9	14			
Percent strat. & crit. materials	29.8	38.8	37.1			
				(Percent)		

\* Data are as of the close of the month or week nearest available date.

P Preliminary data.

R Revised data.

n.a. Data not available.

\*\* Negligible.

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