MEMO ROUTING SLIP

NOT USE FOR APPROVALS, DISAPPROVALS, CONCURRENCES, OR SIMILAR ACTIONS

	NAME OR TITLE	INITIALS	CIRCULATE
1	General Canine		
	ORGANIZATION AND LOCATION	DATE	COORDINATION
2	Col. Travers		FILE
3	Col. Hetherington	FEB 6 1952	INFORMATION
	Mr. Friedman		NECESSARY ACTION
			NOTE AND RETURN
4			SEE ME
			SIGNATURE

REMARKS

If you can spare the time to read at least the topmost paper, I would be appreciative. The fact is that when Gen Clarke took over from Col. Hayes, he found a situation which required immediate correction and he took steps to do so. Up until then, top-level ASA civilian personnel had been entirely unable (over)

FROM NAME OR TITLE	DATE
	21 Jan 52
ORGANIZATION AND LOCATION	TELEPHONE

DD FORM 1 FEB 50 95 Replaces DA AGO Form 895, 1 Apr 48, and AFHQ Form 12, 10 Nov 47, which may be used. 16—16—48487-4 GPO ☆

to get the [illegible] presented to the people in the Pentagon. Col. Hayes and his principal advisers felt that the civ- personnel of ASA were well off, and no promotions were needed acutely. This study had been prepared early in 1949 but was given no favorable consid- eration until Gen Clarke took over.

F

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APR 22 1949

CSGAS

MEMORANDUM FOR: The Assistant Secretary of the Army

SUBJECT: Effect of Critical Grade Limitations on Operations of the Army Security Agency

1. One of my first actions on assuming command of the Army Security Agency was to call in the Chiefs of the three Operating Divisions to ask them to indicate their principal problems. All three indicated that the problem of prime importance is the adverse effect which the imposition of the critical-grade policy is having on the operations of the Agency. I mentioned this matter to you and at your suggestion am presenting herewith the facts for your consideration. The details and recommendations are embodied in the accompanying documents.

2. When I first broached this subject to you I indicated my feeling that the Army Security Agency ought perhaps to be exempted from the critical-grade policy. However, after further study, I have come to the conclusion that aggressive action with a view to obtaining the additional critical grades required by the Agency and warranted by its special situation would be more practical and probably bring quicker results than an attempt to have the Agency exempted from the policy.

3. To summarize the situation, the memorandum indicates that the Army Security Agency's operations are being adversely affected by a lack of critical grades, that it should have approximately 200 more critical grades than it now has, and that 87 of them are immediately required to meet its most urgent needs.

CARTER W. CLARKE
Colonel, Signal Corps
Chief, Army Security Agency

1 Incl
Memo w/9 Incls

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CSGAS-

MEMORANDUM on the Effect of Critical Grade Limitations on Operations of the Army Security Agency

1. The purpose of this memorandum is to discuss the adverse effects which critical-grade limitations are having on the operations of the Army Security Agency and to present recommendations for an amelioration thereof. The memorandum is accompanied by numerous graphs which will assist in the bringing out of essential details.

2. a. Immediately following the close of World War II, the Army Security Agency undertook a complete review of position allocations within its organization as a primary step in conversion from a war to peacetime status. As a result, the organization and position allocations were adjusted by the Agency in accordance with its peacetime mission. Subsequent to the foregoing action, and toward the end of the spring of 1947, a personnel directive from the Office of the Secretary of the Army, established critical-grade ceilings for all Department of the Army installations, to be effective on 1 July 1947.

b. As a result of intercession by high authority, the Army Security Agency appeared to have fared somewhat better than did other field installations of the Department of the Army. Nevertheless, when the critical-grade limitation was put into effect, the number of critical grades allocated to the Army Security Agency was 57 less than the number required for its then authorized organizational strength.

c. Unusual difficulty was experienced at this Agency in complying with critical-grade restrictions, since many higher grade positions require specialized or unusual skills and involve highly technical duties which are indispensable to the accomplishment of the total mission. In very few instances was it feasible to redistribute such duties to lower grade positions requiring lesser skills. As a result, in order to keep these positions in a non-critical grade category, it was necessary to:

(1) Assign supervisory responsibilities to the next higher echelon (sometimes outside the immediate organizational unit concerned).

(2) Abolish positions and eliminate functions.

(3) Reduce grades previously allocated to certain positions by removing some of the duties and responsibilities therefrom in the position descriptions. This, however, imposed a definite hardship on these employees

who, because of loyalty to the Agency, continued to perform the duties for which they could receive no credit or corresponding pay.

(4) Shape a new organizational unit around the allowable number of critical grades, which meant the unit would not operate as effectively as required.

d. The stringency of critical-grade restrictions was further intensified by the conversion to civilian status of military personnel who occupied key positions in the organization and whose continuance in these positions was highly desirable.

3. a. In brief, as a result of the foregoing actions taken in order to conform to the policy, 31 positions had to be downgraded and their incumbents correspondingly reduced in grade; in addition, 26 organizational vacancies in the critical grades had to be eliminated.

b. The lack of sufficient critical grades has resulted in a serious stagnation in advancement for many of our most competent workers, with a consequent engendering of emotions of dissatisfaction, then discontent and discouragement, soon leading quite naturally to a desire on their part to transfer to other agencies where not only would their talents be equally appreciated but also where no artificial barriers have been established to prevent or seriously retard their future advancement.

c. While with the passage of time certain readjustments were made possible by authorized increases in critical grades, nevertheless, the Agency has lost a number of people because of expressly stated dissatisfaction with the critical-grade situation. Inclosure 1 gives a list of names, positions and grades of 26 efficient employees who resigned or transferred or left the Agency for this cause.

d. It is hardly necessary to emphasize the fact that certain other agencies, such as the Navy, the Air Force, the CIA, and the Department of State, which were and still are competing for our technicians, were not and are not handicapped by a similar policy with respect to critical grades; and while these other agencies have cooperated with the Army Security Agency by entering into informal agreements with regard to transfers of personnel, nevertheless, the situation has been and remains one of embarrassment to all concerned. Those services need technical personnel with the training possessed by Army Security Agency workers and are able not only to offer them better pay, but also, in those cases where the transfer is made at the same pay, they can point to definite prospects of advancement. In most such cases the desired Army Security Agency employees are qualified for advancement to positions of greater responsibility within the Agency

but because of the Agency's lack of critical grades, promotion to such positions is currently not possible. Under these circumstances it would hardly be fair to such employees to continue to withhold indefinitely approval of their requests for transfer, and where approval is not forthcoming in a reasonable length of time it is only natural that they should become restive in the face of a situation which makes their advancement appear to be a very slow or problematical matter.

4. a. In order to improve the present unsatisfactory position of the Army Security Agency, as outlined above, a relatively large increase in its quota of critical grades is required. But before presenting this requirement, and despite the well-known dictum that comparisons are sometimes not valid and often odious, I will present to you certain facts and figures pertaining to another technical agency in the Department of the Army and therefore, like the Army Security Agency, subject to the critical-grade limitations. It is my belief that a comparison between the two agencies is valid and pertinent to an assessment of their respective situations in this regard. I refer to the Signal Corps Installation at Fort Monmouth, New Jersey, where there are several laboratories and units conducting technical work akin to that done at the Army Security Agency. The data giving the total strength and numbers of critical grades pertaining to the whole installation at Fort Monmouth were obtained and set alongside those pertaining to the Army Security Agency (Inclosure 2). Certain percentages were calculated and are indicated in the tabulations in that inclosure. From the figures shown therein a few graphs were made which present in a succinct manner the fact that, in proportion to their respective strengths, Fort Monmouth is far better off than is Army Security Agency in respect to critical grades (Inclosure 3).

b. It is necessary to add that the graphs apply to the situation as it existed on 30 March 1949 and that small fluctuations in the picture may and do appear from week to week as changes are made in the number of critical-grade positions established and allocated to operating units. Also, in order to take care of urgent situations, the Agency has been careful in allocating its critical grades and has refrained from completely using up its quota. Therefore, some have been withheld in a reserve pool and have not been allocated to the operating units. As of 30 March 1949 there were approximately 32 such P-grade authorizations in the pool. I propose to reduce this reserve pool to the absolute minimum as soon as possible, but as will later be shown, the number of critical grades withheld in such a reserve pool does not significantly affect the unfavorable position the Army Security Agency occupies in comparison with that of Fort Monmouth.

5. Referring to Inclosure 3, graphs A and A' show the percentage of personnel in each P-grade based on the <u>total strength</u> of each of the two agencies. It will be noted that the graph applying to Fort Monmouth is

more regular than that applicable to the ASA. The ASA graph shows a very decided skew in the form of a precipitous drop from P-2 to P-3.

6. Graph B places alongside each other the respective percentages (of total strength) within the P grades in the two agencies. It will be noted that in respect to P-1's, the ASA has almost three times as many as Fort Monmouth; with respect to P-2's, ASA has more than three times as many; with respect to P-3's, a little bit less than what Monmouth has; with respect to P-4's, ASA has less than half of what Monmouth has, etc. Graph C shows similar comparisons with respect to the CAF grades (CAF-7 and above); Graph D shows the same comparison according to P and equivalent CAF grades; finally Graph E shows the comparisons by critical-grade groups. The last-mentioned chart is particularly significant in that it shows that ASA has 3.15 times as many people in P-1 and P-2 grades as Monmouth; but it has only 66% of what Monmouth has in the Group C critical grades (P-3,4,5 and CAF-9,10); and it has only 35% of what Monmouth has in the Group B critical grades (P-6,7,8,9 and CAF-11,12).

7. a. Graphs F and G (Inclosure 4) demonstrate quite graphically how the ASA compares with Fort Monmouth in the P grades and in the critical-grade groups. These charts were made by taking the respective total strengths of the two agencies, finding the ratio between them, and then applying that ratio to the number of positions Fort Monmouth has in each grade to find what the number would be if Fort Monmouth had the same total strength as ASA. The resulting number is then compared with the number which the ASA actually has in each grade. For example, in comparing the two agencies in respect to P-grades, the following tabulation was made:

Comparison of ASA and Fort Monmouth
Based upon Total Strength of the Respective Agencies
(ASA-2644; Monmouth-4578. Ratio .577:1)

Col.	ASA			Fort Monmouth	
	1	2	3	4	5
	Actual Nos.of Positions	No.Over (Col.1 Minus Col.5)	No.Under (Col.5 Minus Col.1)	Actual Nos.of Positions	Nos.Reduced by factor .577
P-1	197	128		119	69
P-2	362	253		188	109
P-3	150		4	267	154
P-4	74		85	276	159
P-5	52		47	171	99
P-6	14		21	60	35
P-7	1		12	23	13
P-8	4		3	12	7
P-9	0		1	1	1
	854	381	173	1117	646

This tabulation shows that the ASA has 128 more P-1's and 253 more P-2's than it should have on the basis of this sort of comparison; but the ASA has fewer positions in the higher grades, as shown in Col. 3 above. In fact, whereas the ASA has 381 more P-1 and P-2 positions than it should have, it lacks 4 in P-3, 85 in P-4, 47 in P-5, 21 in P-6, 12 in P-7, 3 in P-8 and 1 in P-9, a total of 173 critical P-grades. The data have been used as a basis for Graph F. The blue areas correspond to the data in Col. 2 above, that is, to P-grades in which ASA has more than it should have on the basis of comparison with Fort Monmouth; the red areas correspond to Col. 3 above, that is, to P-grades in which ASA has less.

b. Graphs F' and G' (Inclosure 5) are similar in nature to the foregoing graphs, except that the comparisons are based not upon relative <u>total</u> strengths but upon relative strengths within the various categories. For example, here is the tabulation applicable to Graph F':

Comparison of ASA and Fort Monmouth
Based upon Relative Strengths in P-grades only
Strength in P-grades: ASA-854; Ft. Monmouth-1117. Ratio .765:1

Col.	ASA			Fort Monmouth	
	1	2	3	4	5
	Actual Nos.	No. Over (Col. 1 Minus Col. 5)	No. Under (Col. 5 Minus Col. 1)	Actual Nos.	No. Reduced by factor .765
P-1	197	106		119	91
P-2	362	218		188	144
P-3	150		54	267	204
P-4	74		137	276	211
P-5	52		79	171	131
P-6	14		32	60	46
P-7	1		17	23	18
P-8	4		5	12	9
P-9	0		0	1	0
	854	324	324	1117	854

Here again it will be seen that ASA has 324 more positions in P-1 and P-2 than it should have on the basis of this comparison; but by the same token it lacks 324 positions in the critical grades. Furthermore, whereas in the preceding tabulation (applicable to Graph F), the ASA is seen to lack 163 critical P-grades, in this tabulation (applicable to Graph F'), it lacks 324 critical P-grades. Graph G' shows the same phenomena. Whereas Graph G shows the ASA to lack 189 critical grades in all groups (A,B, and C), Graph G' shows the ASA to lack 332.

8. a. Because of the possibility that in comparing Fort Monmouth and the ASA in respect to their relative numbers of critical grade positions certain factors not quite obvious might be tending to paint a darker picture of ASA's position than is valid, the same sort of comparisons were again made, but using only the data for the Signal Corps Electronics Laboratories, at Fort Monmouth. Inclosure 6 gives the data as of February 1949 for SCEL and as of 31 March 1949 for ASA.

b. Graphs H and I show how the two organizations compare. It will be noted (Graph H) that on the basis of the comparison between the ASA and SCEL, the ASA lacks 334 critical P-grades and (Graph I), a total of 333 critical grades; on the basis of the former comparison (ASA and Fort Monmouth as a whole), the ASA was shown to lack only 189. This comparison makes the ASA picture much darker instead of lighter.

9. a. Again, and for the same reason mentioned in Par. 8a, a comparison was made between the SCEL and only those positions in ASA which are classified as pertaining strictly to research and development and the salaries for which are accordingly paid out of 610 (research and development) funds. Inclosure 7 gives the data as of February 1949 for SCEL and as of 18 April 1949 for ASA.

b. Graphs J and K show how the two organizations compare. It will be noted in Graph J that on the foregoing basis the ASA lacks approximately 340 P-grades; in Graph K, it lacks approximately 346 critical grades, even more than are indicated in the preceding comparisons.

c. (1) In an article published in the February 1949 issue of FM-TV Magazine (Inclosure 8), the SCEL states:

> "Approximately 10% of the professional men at SCEL are in the $7,400 to $12,500 salary bracket; another 15% in the $6,200 to $7,400 group, and 23% are earning between $5,200 and $6,200."

(2) Having the SCEL figures, they may be compared with those for ASA. The first group ($7,400 to $12,500) corresponds to P-6,7,8, and 9; the second group, to P-5; the third, to P-4. Here is the comparison, based upon relative strengths in P-grades (SCEL - 955; ASA - 872):

			SCEL Actual Nos.	SCEL % of Total P-Grade Str.	ASA Actual Nos.	ASA % of Total P-Grade Str.	RATIO SCEL:ASA
P-4	Base P-4 $5232	Base P-5 -$6235	227	23.5	81	9.3	2.53
P-5	Base P-5 $6235	Base P-6 -$7432	151	15.8	53	6.1	2.59
P-6	Base P-6 $7432	Base P-7 -$8509	56		16		
P-7	Base P-7 $8509	Base P-8 -$10,305	22		1		
			91=	9.5	21=	2.4	3.96
P-8	Base P-8 $10,305	Maximum -$10,330	12		4		
P-9	(SCEL Position) $12,500		1		0		

(3) The foregoing may be summarized quite succinctly. In the higher level salary groups shown below, and after adjusting the data in accordance with the relative total P-grade strengths of the two comparable organizations, SCEL and ASA, their respective situations are as follows:

Group 1--P-4 ($5,200--$6,200) SCEL has more than 2½ times as many personnel in this group than has ASA.

Group 2--P-5 ($6,200--$7,400) SCEL has more than 2½ times as many personnel in this group than has ASA.

Group 3--P-6,7,8,9 ($7,400--$12,500) SCEL has almost 4 times as many personnel in this group than has ASA.

10. In my opinion these graphs tell an important story. It is a subject for speculation what similar comparisons between ASA and Navy, or ASA and Department of State, or ASA and CIA would show, since these agencies do not have any critical-grade limitation policy. Attempts to obtain accurate data from these agencies have not been pressed but there is good reason to feel that they are even better off than Ft. Monmouth and, of course, the ASA, in respect to the number of high-grade positions they have.

11. a. In connection with this whole situation a few special remarks may be in order. In the first place, a large number of the civilian personnel of the Army Security Agency serve in technical capacities in a highly-specialized field basically of a research and development nature. The

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following is extracted from the Department of the Army Research and Development Plan for Fiscal Year 1951, dated 18 March 1949:

"Annex III R&D Policies *******

6. Scientific Personnel.

a. The supply of qualified personnel is a critical factor in determining the scope of certain areas of military research and development. It is, therefore, important that military research and development agencies be assured the ability to compete for supervisory technical personnel on an equal footing with industry through long-term planning, comparable salary scales, adequate working and living conditions and suitable administrative practices."

b. It is, of course, hardly necessary to indicate that the Government can and does compete with fair success with industry in hiring personnel in the lower or non-critical grades, because in those grades Government service is more attractive, but the reverse is true in the higher, or critical grades. Congress is being urged to recognize the need to increase the salaries in the higher brackets. The critical-grade policy hampers the Department of the Army in the necessary retention of highly qualified technical personnel.

c. There is one more reason why the critical-grade limitation has a more serious effect on the Army Security Agency than on other organizations in the Department of the Army, including both technical and non-technical. As a general rule, the longer a specialist stays in his field the more valuable do his services become, and therefore his ability to qualify for positions requiring his technical capabilities is constantly increasing at the same time that his earning power is improving. But because of the very nature of the cryptologic field, which has no counterpart in civil life, the longer a technician stays in that field the more valuable do his services become to a cryptologic agency of the Government, but his ability to qualify for positions outside the cryptologic field is constantly decreasing at the same time that his earning power in that field is improving. He knows that his economic security, instead of becoming enhanced the longer he stays in his present field, will actually become materially impaired, and that he will find himself in rather serious difficulties in case he has to change his occupation for any reason, such as curtailment of appropriations, resulting in reductions in force which might jeopardize his tenure of position; health, which might require a change to a more suitable climate; family or financial obligations, which might increase at a much greater rate than his earning power, etc. Therefore, it is only fair to technical employees of the Army Security Agency that this special situation also be taken into account in determining and applying promotion policies, so that they may build up a backlog toward economic security.

Plenty of our workers recognize only too clearly what their situation may be in a few years from now. Some have already acted upon the recognition of what their future situation might become, and they have gone elsewhere.

d. The foregoing considerations must be taken into account in establishing or formulating policies in the Army Security Agency particularly because the greater the attrition rate the weaker becomes the security of operations in the Agency. Especially is this applicable to the personnel occupying critical-grade positions in the Agency, since such personnel by virtue of their duties, come into possession of a greater quantity of highly classified cryptologic information than do the personnel occupying positions in the nonperitical grades. The security factor here under consideration is of vital impertance.

12. a. Attached hereto as Inclosure 9 is a detailed list of the critical grades urgently required by our Operating Divisions (1) for military conversions, (2) for the establishment of new positions, (3) for promotions to additional identical positions, and (4) for the restoration of appropriate grades to the remaining positions which were downgraded at the imposition of the critical-grade limitations and which have not yet been restored.

b. The additional critical grades indicated as required therein to meet the most immediate needs of the operating divisions are summarized below:

	1 Security Division	2 R&D Division	3 Operations Division	4 Total
Group A (CAF-13)	0	0	0	0
Group B (P-6,7,8 & CAF-11,12)	3	4	3	10
Group C (P-3,4,5 & CAF-9,10)	5	12	60	77
	8	16	63	87

c. The foregoing 87 critical grades, as indicated above, will meet only the most immediate needs of the operating divisions of ASA. In addition, to satisfy the overall requirements pointed out in the preceding paragraphs, and to place the ASA on a firmer foundation for the retention of its professional and higher level administrative civilian personnel, it is felt that the Agency should have approximately 113 more critical grades, as follows:

Group A	(CAF-13)	2
" B	(P-6,7,8 & CAF-11,12)	38
" C	(P-3,4,5 & CAF-9,10)	73
		113

d. Herewith is a recapitulation of the Army Security Agency's needs:

	1 Present allotment in each critical-grade group	2 Required for most immediate needs	3 Additional desired	4 Total
Group A (CAF-13)	1	0	2	2
" B (P-6,7,8 & CAF-11,12)	40	10	38	48
" C (P-3,4,5 & CAF-9,10)	345	77	73	150
Totals	386	87	113	200

13. No additional FY 1949 funds would be needed if the immediately required 87 critical grades indicated in Column 2 of Par. 12d are granted.

14. It is recommended:

a. That the 87 critical grades indicated in Par. 12b above be granted the Army Security Agency immediately.

b. That as soon as practicable thereafter the additional 113 critical grades indicated in Par. 12c above be granted.

List of Persons Who Left the Army Security Agency
Expressly Because of the Critical-grade Limitations

	NAME	REASON
1.	Palmer, Stephen E. Res. Anal. P-1 EOD 11-5-48 Resigned 2-24-49	Accepting P-2 position with CIA. Has heard there is little chance for promotion here.
2.	Thomas, Bruce Mech. Engr. P-1 EOD 8-12-48 Resigned 9-24-48	Was told promotions are slow. Going to Gov't Printing Office. P-2 offered there for same type of job with chance for promotion.
3.	Kelly, William L. Res. Anal. Spec. P-1 EOD 2-23-47 Resigned 9-10-48	Could get better salary teaching at University of Scranton. Salary there equal to P-3 here.
4.	Perry, Bernard W. Elec. Engr. P-1 EOD 6-9-47 Resigned 7-30-48	Better rating at Bureau of Ships. P-3. Could never get promotion here.
5.	Xiorhos, Barbara Res. Anal. Spec. P-1 EOD 11-3-48 Resigned 6-1-48	Was told never could expect P-3. Went to CIA to accept P-2 with promise of promotion.
6.	McCullough, Matthew Res. Anal. Spec. P-2 EOD 11-13-47 Resigned 2-18-49	Felt there was no chance for advancement. Resigned to investigate opportunities elsewhere. Not satisfied with present grade here.
7.	Paul, Alvin W. Radio Engr. P-2 EOD 4-7-47 Resigned 12-16-48	Was downgraded from P-3 to P-2 April 1947. Accepting job with Bureau of Standards. Was responsible for work of P-3 level, but could not get rating restored here.
8.	Glod, Walter J. Elec. Engr. P-2 EOD 6-26-47 Resigned 1-11-49	Could not get P-3 here. Went to Bureau of Ships.
9.	Giffler, Milton Res. Anal. Spec. P-2 EOD 1-17-46 Resigned 12-3-48	Accepting job with CIA, P-3. No chance for development and promotion here.
10.	Bornstein, Hymen E. Res. Anal. Spec. P-2 EOD 2-26-47 Resigned 10-14-48	Accepting job with State Dept., P-3. Could not get better salary here.

Incl 1

	NAME	REASON
11.	Lechter, Max Res. Anal. P-2 EOD 5-13-46 Resigned 6-25-48	Very outspoken about the Royall Plan. Feels there is no opportunity for progress or ambition under it. Went to Dept. of Commerce, P-3.
12.	Albert, Floyd Res. Anal. P-2 EOD 5-20-46 Resigned 5-28-48	No chance for advancement here. Dissatisfied with job.
13.	VanDevanter, Carroll Roumanian, French P-2 EOD 6-27-48 Resigned 2-27-48	Went to CIA. Accepting job with better rating.
14.	Crockett, Lorraine F. A. Anal. P-2 EOD 1-22-45 Resigned 10-22-48	To accept position, P-4. Wright Field.
15.	Miller, Paul F. A. Anal. P-2 EOD 2-19-47 Resigned 11-21-47	To accept P-3 with CIA. Opportunities for advancement better there.
16.	Taylor, Louie IBM Methods Anal. P-2 EOD 3-5-46 Resigned 1-24-49	To accept position with private industry. Much better salary.
17.	Borland, Robert Elec. Enr. P-2 EOD 11-1-46 Resigned 2-13-48	Financial difficulties. Was promised P-3 but promotion did not come.
18.	Giffler, Alberta A. Res. Anal. P-3 EOD 12-14-43 Resigned 2-27-48	No chance for higher grade. Went to CIA - better rating there.
19.	Wolfe, Jack F. A. Anal. P-3 EOD 2-25-44 Resigned 12-26-47	To accept position with private industry. No chance for promotion here.
20.	Israel, Howard F. A. Anal. P-3 EOD 10-4-43 Resigned 12-12-47	To return to school. Believes he has gone as far as he can here.

Incl 1

	NAME	REASON
21.	Van Liew, Harry J. IBM Methods Anal. P-3 EOD 9-3-46 Resigned 11-12-48	Private industry. IBM Methods Anal. Better salary offered in private industry.
22.	Livingston, Earl F. Mech. Engr. P-3 EOD 10-21-46 Resigned 2-13-48	P-4 with Navy. Was downgraded, could not regain rating.
23.	Rossi, Oscar Elec. Engr. P-3 EOD 3-20-45 Resigned 9-22-48	Better job with private industry in California. More chance of promotion in private industry than under our present regulations.
24.	Kohler, Hans Radio Engr. P-5 Resigned 3-26-48 EOD 12-1-44	Was downgraded from P-6. Better job with Bureau of Standards.
25.	Dubberstein, Waldo Res. Anal. P-5 EOD 3-24-42 Resigned 10-3-47	To accept P-6 at CIA
26.	Gadbois, Irene Res. Anal. P-2 EOD 12-4-44 Resigned 4-15-48	Completely discouraged about possibility for advancement here. Returned home.

Incl 1 - [redacted]

Grade	ARMY SECURITY AGENCY Actual Numbers	ARMY SECURITY AGENCY Percentage of Total Strength	FORT MONMOUTH Actual Numbers	FORT MONMOUTH Percentage of Total Strength
P-1	197	7.450	119	2.599
P-2	362	13.697	188	4.106
P-3	150	5.673	267	5.832
P-4	74	2.798	276	6.023
P-5	52	1.966	171	3.753
P-6	14	0.529	60	1.310
P-7	1	0.037	23	.502
P-8	4	0.151	12	.262
P-9	0	---	1	.021
TOTAL	854	32.301	1117	24.413
CAF-7	39	1.475	171	3.737
CAF-8	15	0.567	100	2.184
CAF-9	14	0.529	40	.873
CAF-10	6	0.226	17	.371
CAF-11	7	0.264	11	.240
CAF-12	1	0.037	5	.109
CAF-13	1	0.037	4	.087
TOTAL	83	3.135	348	7.601
	Total P & CAF 937		Total P & CAF 1465	

ASA Strength as of 31 Dec. 1948 - 2644

FM Strength as of 23 Feb. 1949 - 4578 (See Tab 1 to this inclosure)

Inclosure 2

COPY

HEADQUARTERS
FOR MONMOUTH, NEW JERSEY

IN REPLY
REFER TO: FMPD 319.1

16 March 1949

Mr. J. L. Sullivan
Director Civilian Personnel
Army Security Agency
Washington 25, D. C.

Dear Mr. Sullivan

The attached figures are submitted in compliance with telephonic request from your office 15 March 1949.

Very truly yours,

(s) John D. Sullivan
JOHN D. SULLIVAN per U.W.
Chief, Civilian Personnel Branch

1 Incl
Figures
(28 Feb 49)

FIGURES AS OF: 28 February 1949

TOTAL CIVILIANS: 4578

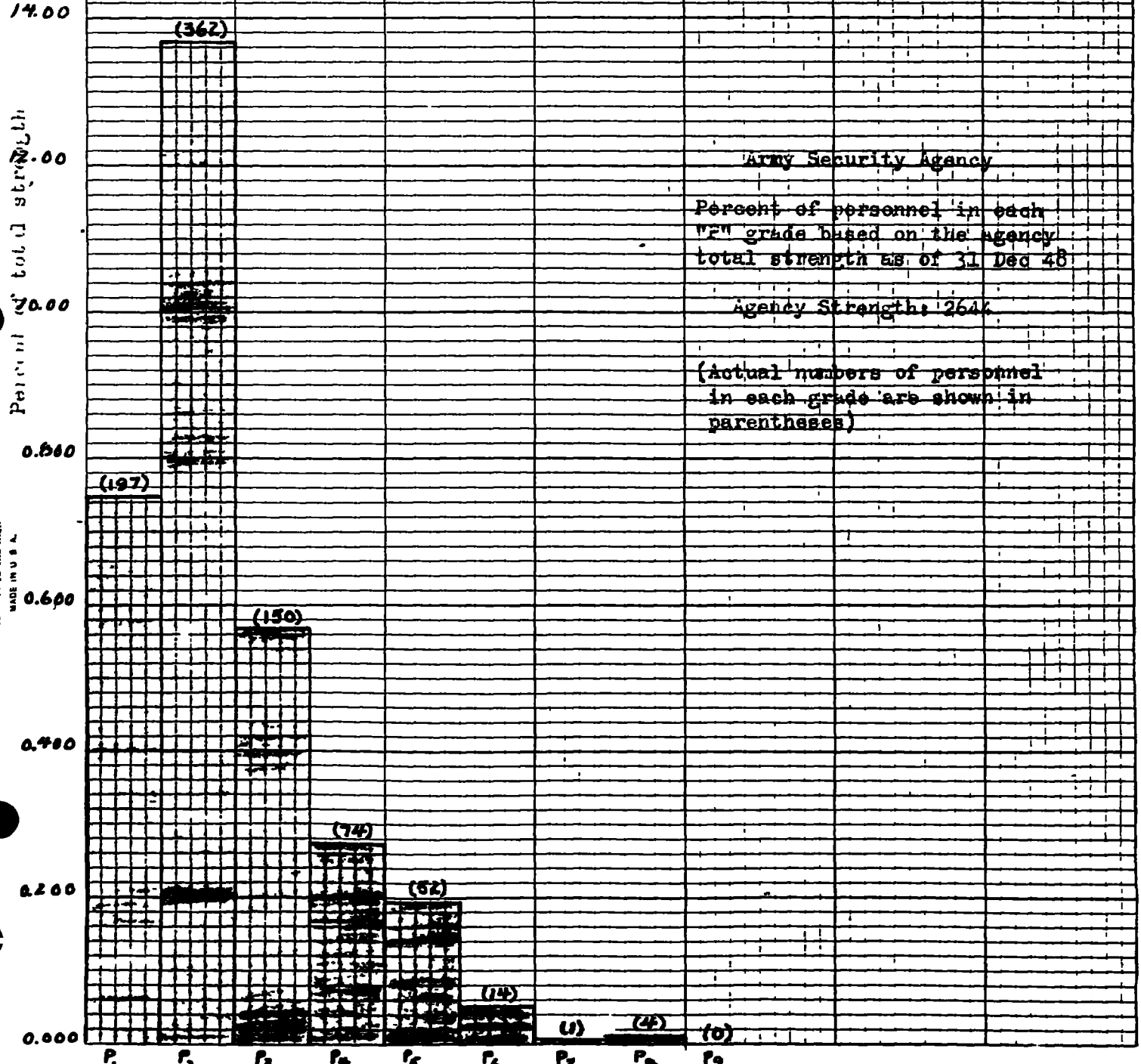
TOTAL MILITARY: 10,547 (879 Officers; 9668 Enlisted Men)

P-9	1
P-8	12
P-7	23
P-6	60
P-5	171
P-4	276
P-3	267
P-2	188
P-1	119 *
TOTAL P's	1117

CAF-13	4
CAF-12	5
CAF-11	11
CAF-10	17
CAF-9	40
CAF-8	100
CAF-7	171
TOTAL CAF's	348

TOTAL P's and CAF's 1465

*P-1 figures were secured by telephone



Army Security Agency

Percent of personnel in each "P" grade based on the agency total strength as of 31 Dec 48

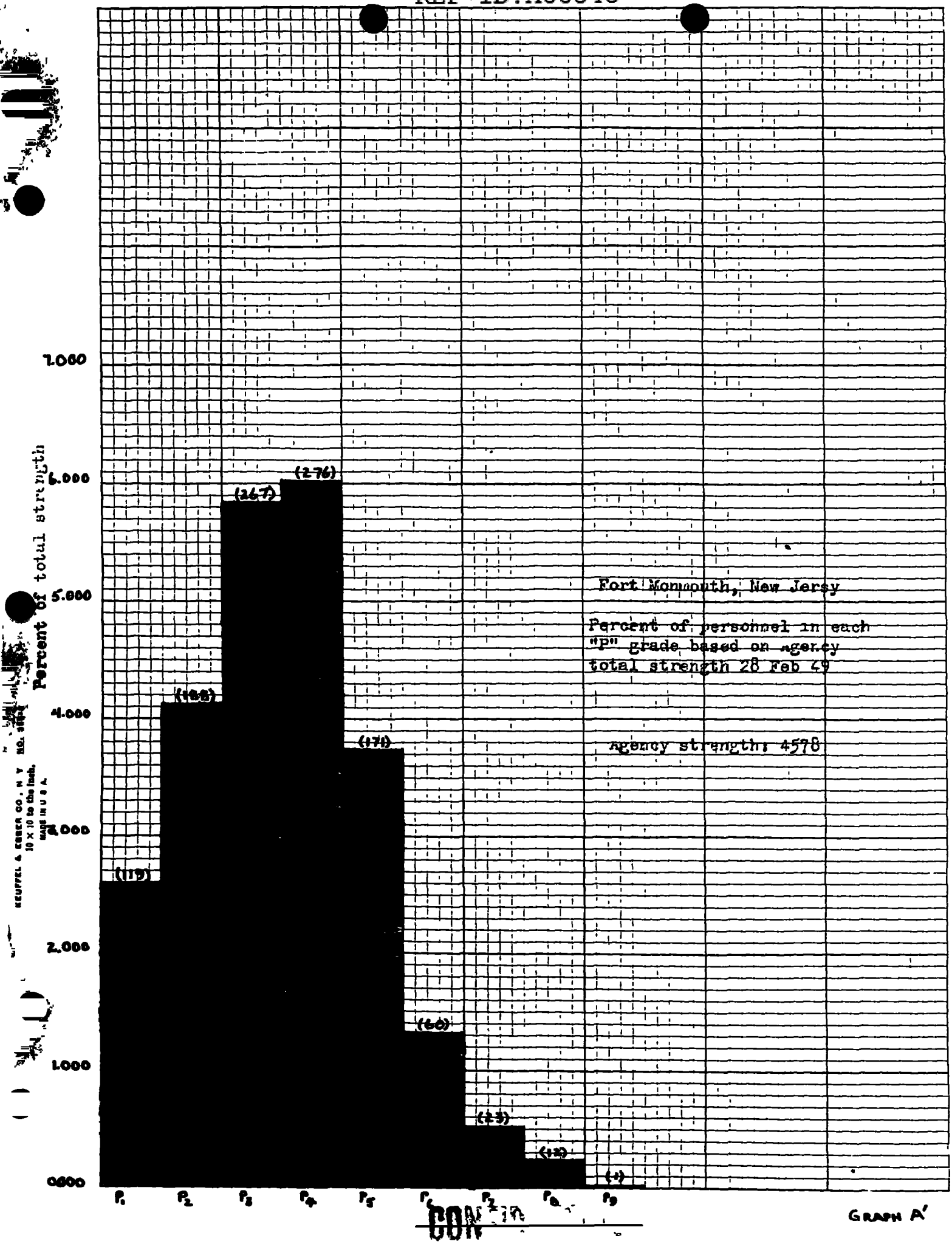
Agency Strength: 2644

(Actual numbers of personnel in each grade are shown in parentheses)

KEUFFEL & ESSER CO N Y NO 358 S
10 to the inch
MADE IN U S A.

GRAPH A

~~CONFIDENTIAL~~
REF ID:A66848



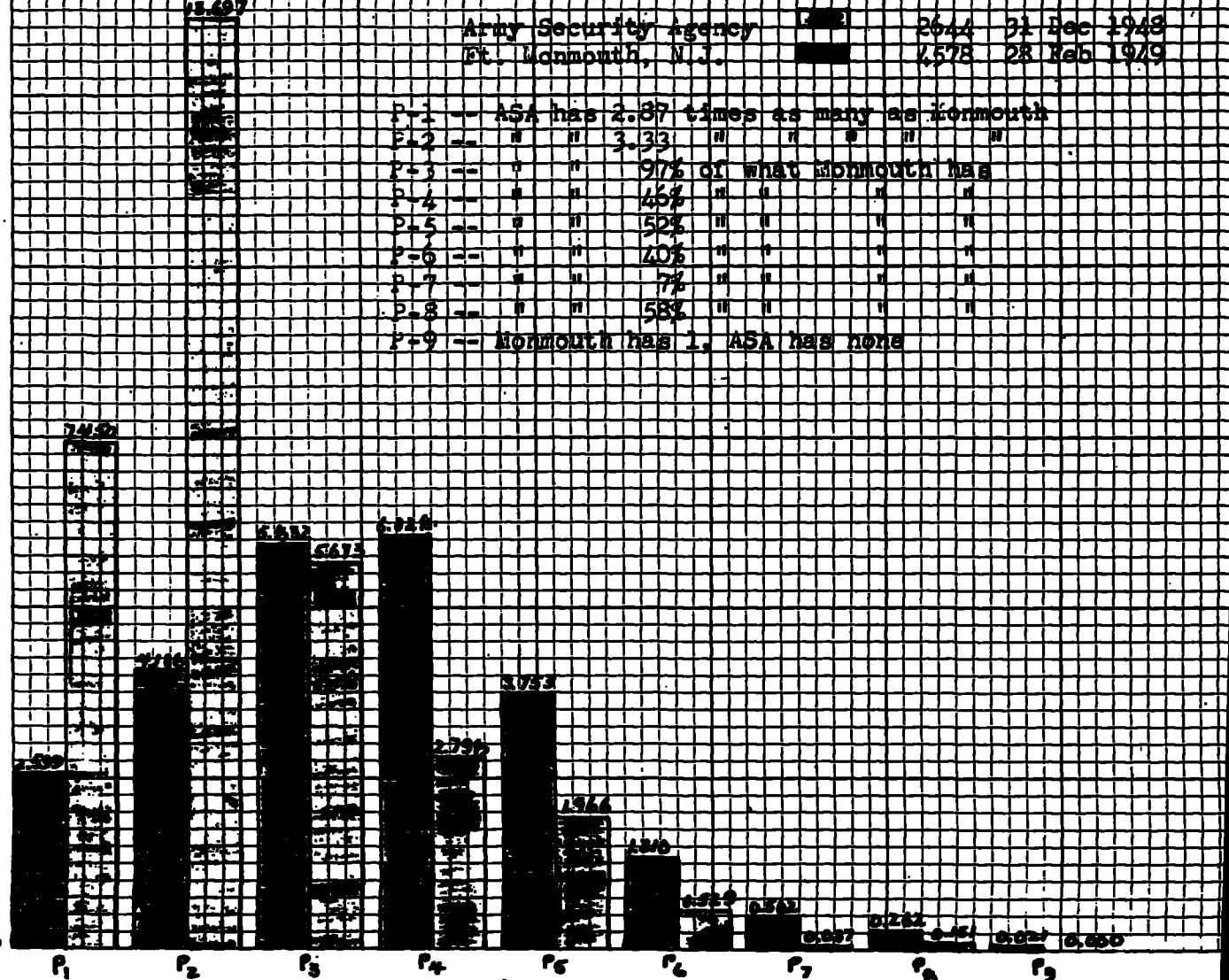
GRAPH A'

~~CONFIDENTIAL~~

Percentage comparison of Grade P-1 and above based on total strengths of the respective agencies

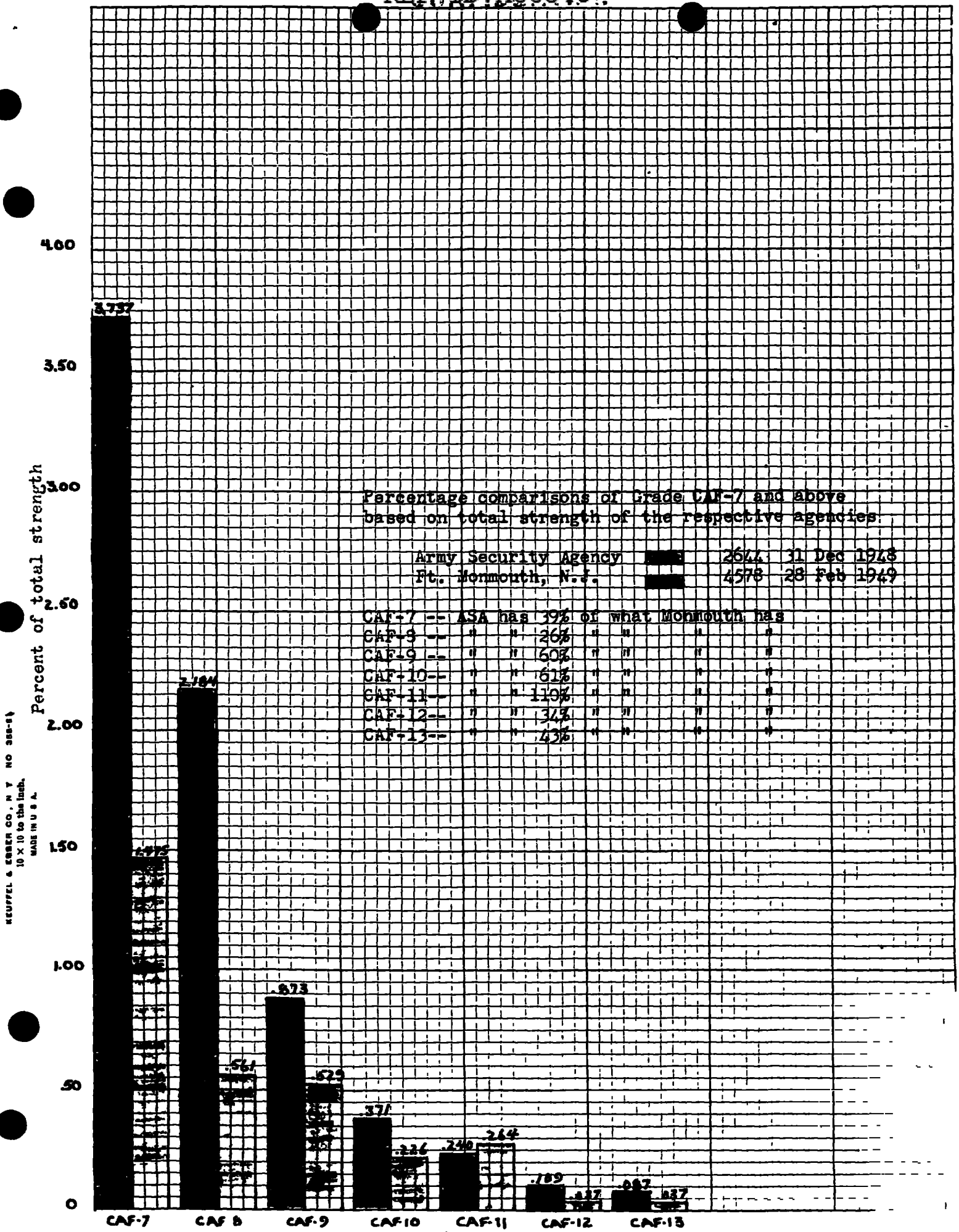
Army Security Agency	[redacted]	2644	21 Dec 1948
Ft. Monmouth, N.J.	[redacted]	1,578	28 Feb 1949

P-1 -- ASA has 2.37 times as many as Monmouth
P-2 -- " " 3.33 " " " " "
P-3 -- " " 91% of what Monmouth has
P-4 -- " " 46% " " " "
P-5 -- " " 52% " " " "
P-6 -- " " 40% " " " "
P-7 -- " " 7% " " " "
P-8 -- " " 58% " " " "
P-9 -- Monmouth has 1, ASA has none



KEUFFEL & ESSER CO., N. Y. No. 358-S
10 x 10 to the inch.
MADE IN U.S.A.

GRAPH



Percentage comparisons of Grade CAF-7 and above based on total strength of the respective agencies.

Army Security Agency	[redacted]	2644	31 Dec 1948
Ft. Monmouth, N.J.	[redacted]	4578	28 Feb 1949

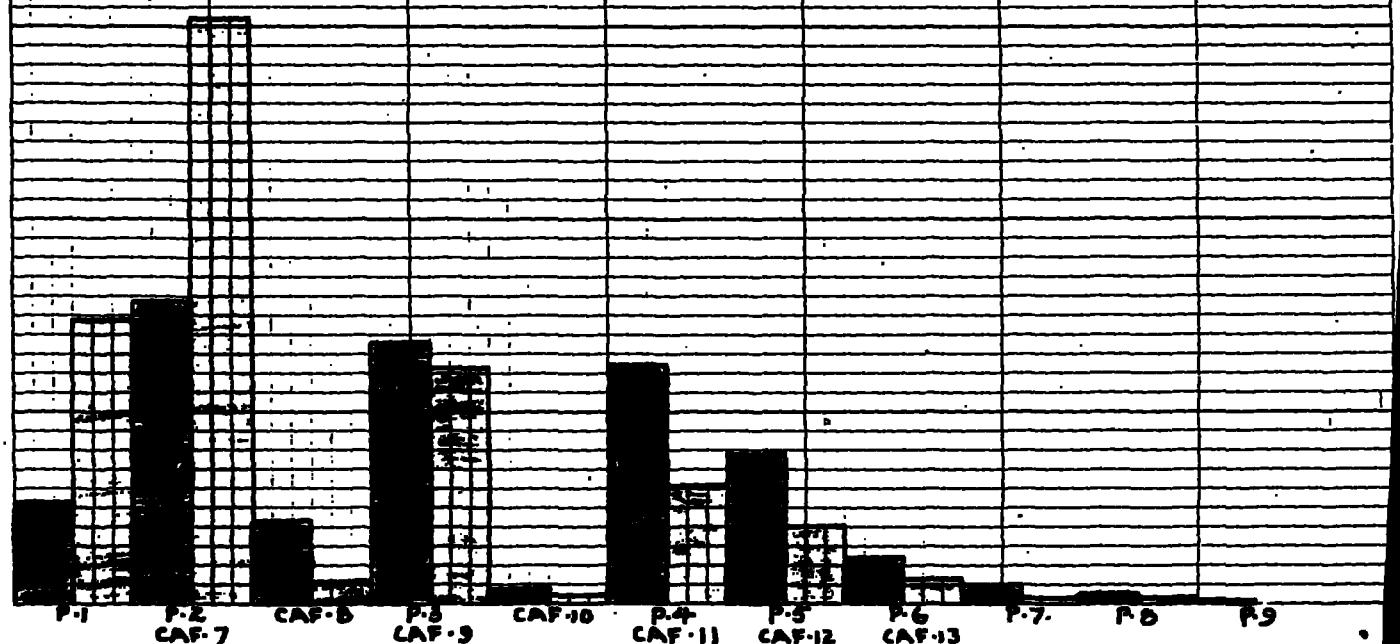
CAF-7 -- ASA has 39% of what Monmouth has
CAF-8 -- " " 26% " " " "
CAF-9 -- " " 60% " " " "
CAF-10-- " " 61% " " " "
CAF-11-- " " 110% " " " "
CAF-12-- " " 34% " " " "
CAF-13-- " " 43% " " " "

GRAPH C

Percentage comparisons of total CAF-7 and above, and P-1 and above, based on total strength of the respective agencies

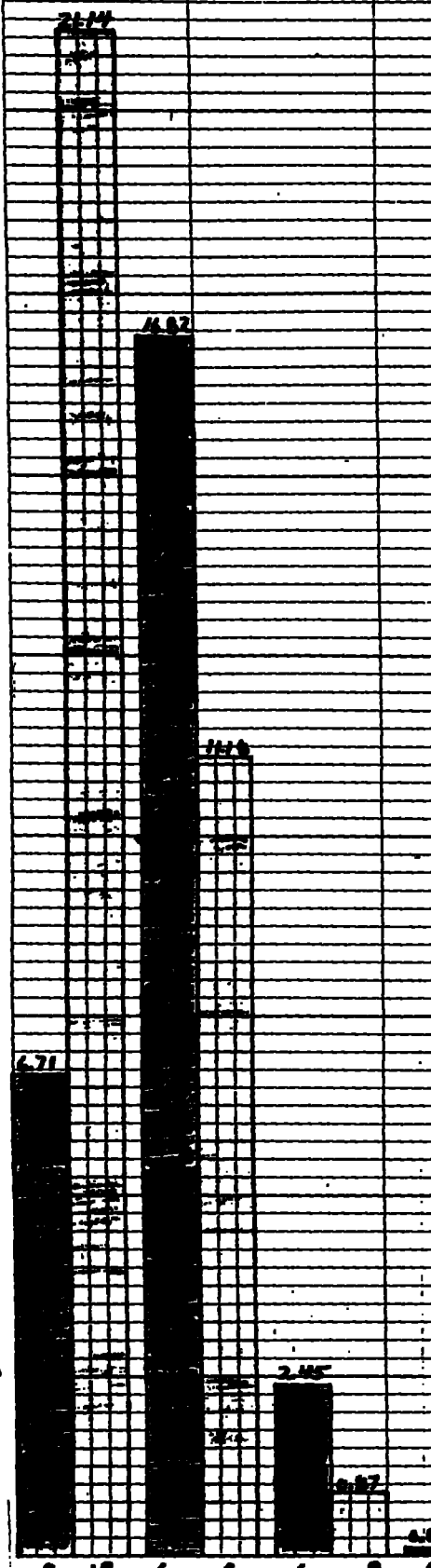
Army Security Agency [redacted]	2644	31 Dec 1943
Ft. Monmouth, N.J. [redacted]	4578	28 Feb 1949

P-1	ASA has 2.37 times as many as Monmouth
P-2 & CAF-7	" " 1.93 " " " " "
CAF-8	" " 26% of what Monmouth has
P-3 & CAF-9	" " 93% " " " "
CAF-10	" " 61% " " " "
P-4 & CAF-11	" " 49% " " " "
P-5 & CAF-12	" " 52% " " " "
P-6 & CAF-13	" " 40% " " " "
P-7	" " 7% " " " "
P-8	" " 53% " " " "
P-9	Monmouth has 1, ASA has none



GRAPH D

REF ID: A66848



Percentage comparisons by critical-grade groups, based on total strength of the respective agencies

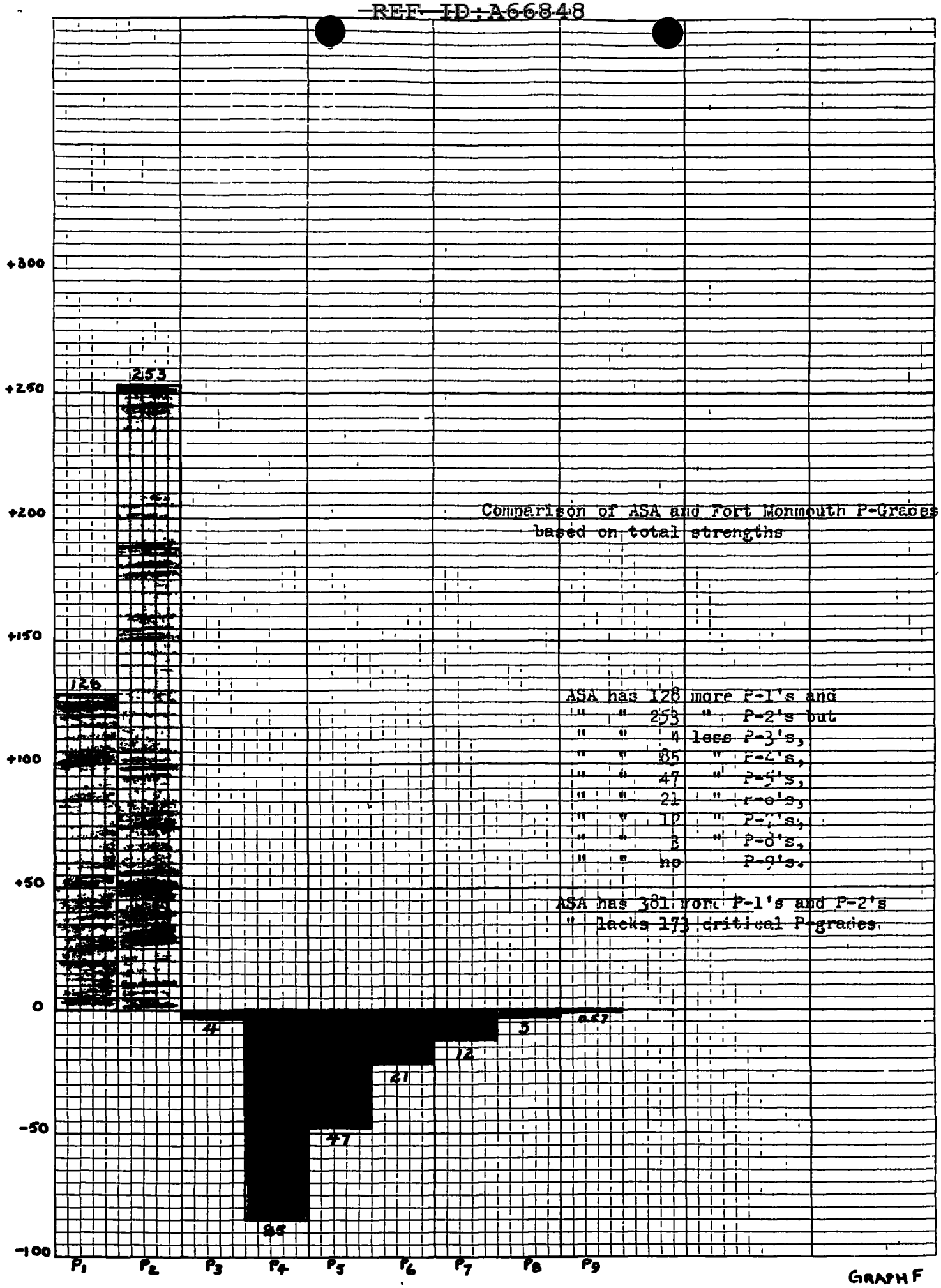
	Army Security Agency [redacted]	2644
	Fort Monmouth, N.J. [redacted]	4578

P-1 & P-2	ASA has 3.15 times as many as Monmouth	
Group C (P-3,4,5 & CAF-9,10)	" " 66⅔% of what Monmouth has	
Group B (P-6,7,8, (9), & CAF-11,12)	" " 35⅓ " " " "	
Group A (CAF-13)	" " 44⅔ " " " "	

GRAPH E

Graph	Grade	ASA%	Monmouth%	Ratio
B	P-1	7.450	2.599	ASA has 2.87 times as many as Monmouth
	P-2	13.697	4.106	" " 3.33 " " " " "
	P-3	5.673	5.832	" " 97% of what Monmouth has
	P-4	2.798	6.028	" " 46% " " " "
	P-5	1.966	3.753	" " 52% " " " "
	P-6	0.529	1.310	" " 40% " " " "
	P-7	.037	.502	" " 7% " " " "
	P-8	.151	.262	" " 58% " " " "
	P-9	0.000	0.021	Monmouth has 1, ASA has none
C	CAF-7	1.475	3.737	ASA has 39% of what Monmouth has
	CAF-8	0.567	2.184	" " 26% " " " "
	CAF-9	.529	.873	" " 60% " " " "
	CAF-10	.226	.371	" " 61% " " " "
	CAF-11	.264	.240	" " 110% " " " "
	CAF-12	.037	.109	" " 34% " " " "
	CAF-13	.037	.087	" " 43% " " " "
D	P-1	7.450	2.599	ASA has 2.87 times as many as Monmouth
	P-2 & CAF-7	15.172	7.843	" " 1.93 " " " " "
	CAF-8	0.567	2.184	" " 26% of what Monmouth has
	P-3 & CAF-9	6.202	6.705	" " 93% " " " "
	CAF-10	0.226	0.371	" " 61% " " " "
	P-4 & CAF-11	3.062	6.268	" " 49% " " " "
	P-5 & CAF-12	2.003	3.862	" " 52% " " " "
	P-6 & CAF-13	0.566	1.397	" " 40% " " " "
	P-7	0.037	0.502	" " 7% " " " "
	P-8	0.151	0.262	" " 58% " " " "
	P-9	0.000	0.021	Monmouth has 1, ASA has none
E	P-1 & P-2	21.14	6.71	ASA has 3.15 times as many as Monmouth
"C"	P-3,4,5 CAF-9,10	11.18	16.82	" " 66% of what Monmouth has
"B"	P-6,7,8,(9) CAF-11,12	.87	2.45	" " 35% " " " "
"A"	CAF-13	.04	.09	" " 44% " " " "

(BASED ON TOTAL STRENGTHS)

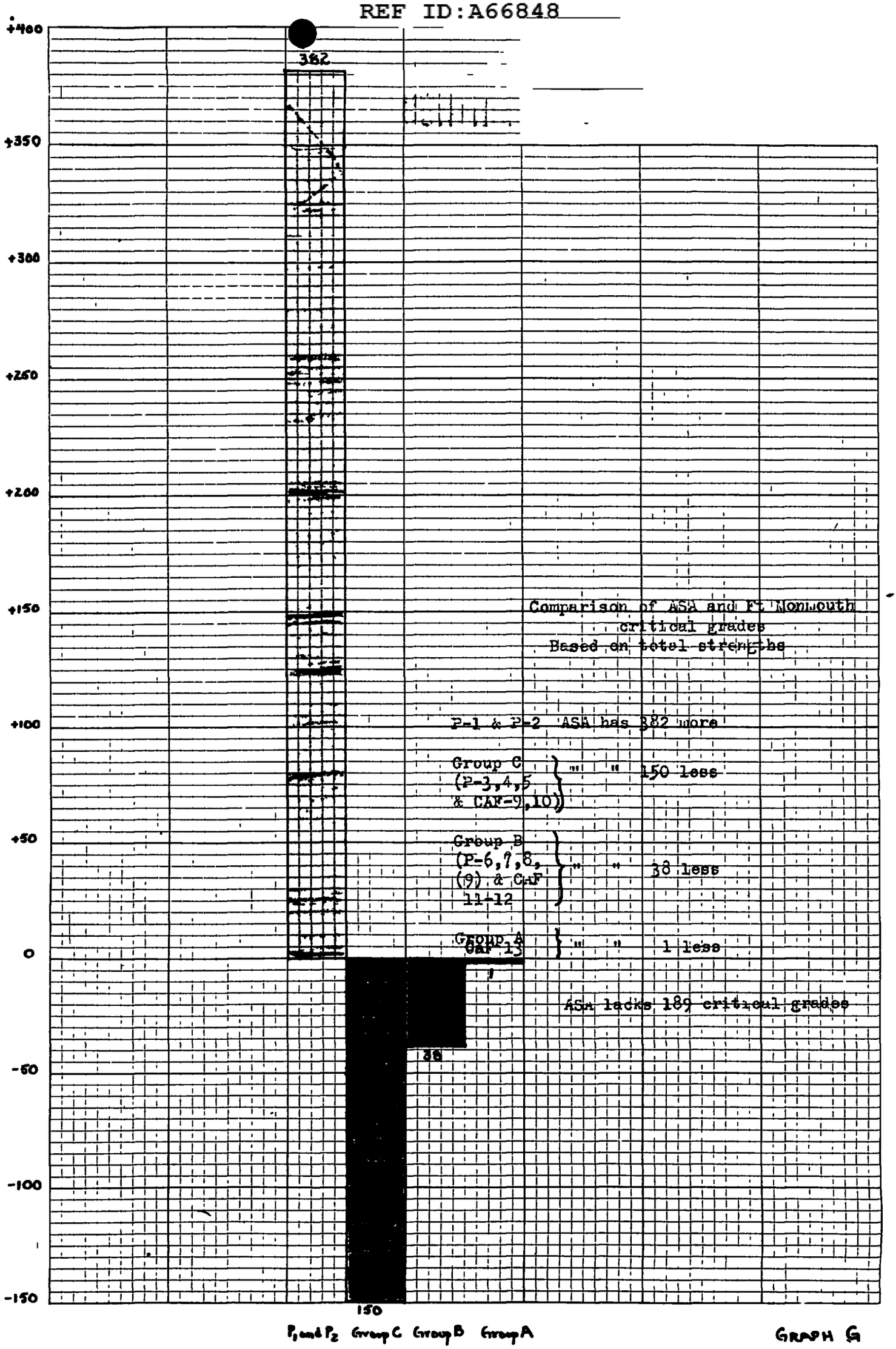


Comparison of ASA and Fort Monmouth P-Grades
based on total strengths

ASA has 128 more P-1's and
" " 253 " P-2's but
" " 4 less P-3's,
" " 85 " P-4's,
" " 47 " P-5's,
" " 21 " P-6's,
" " 12 " P-7's,
" " 3 " P-8's,
" " no P-9's.

ASA has 381 more P-1's and P-2's
" lacks 173 critical P-grades.

GRAPH F



KEUFFEL & ESSER CO N Y NO 358-5
10 × 10 to the inch
MADE IN U.S.A.

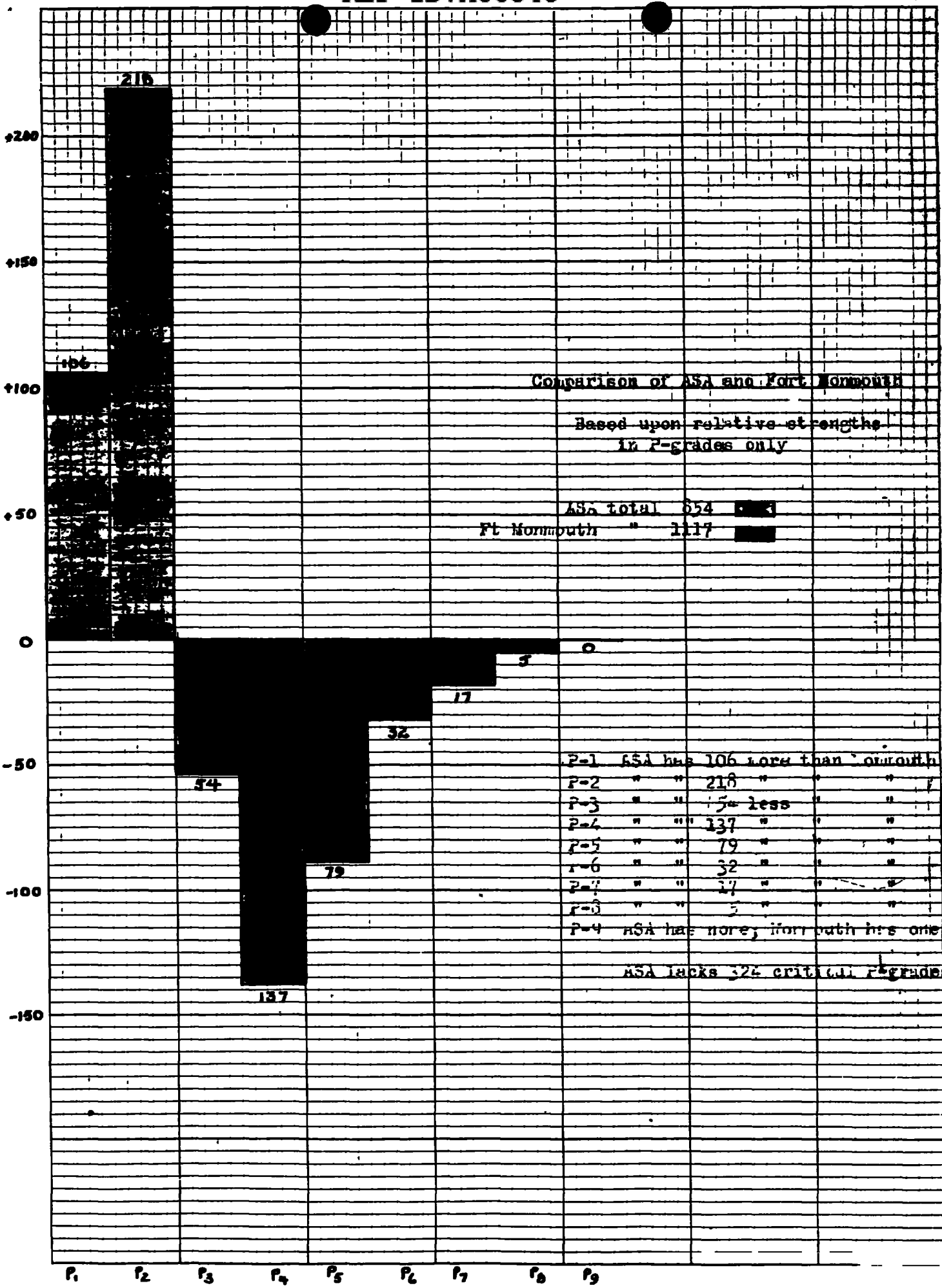
GRAPH G

Summary of Comparison of ASA and Ft. Monmouth (Based on total strengths)

ASA Total Strength 31 Dec 48 -- 2644
Ft. Monmouth " " 28 Feb 49 -- 4578

Graph	Grade	Monmouth has	ASA has	ASA should have	ASA excess	ASA deficiency
F	P-1	119	197	69	128	
	P-2	188	362	109	253	
	P-3	267	150	154		4
	P-4	276	74	159		85
	P-5	171	52	99		47
	P-6	60	14	35		11
	P-7	23	1	13		12
	P-8	12	4	7		3
	P-9	1	0	1		1
		1117	854	646	381	163
L (App.1)	CAF-7	171	39	99		60
	CAF-8	100	15	58		43
	CAF-9	40	14	21		7
	CAF-10	17	6	10		4
	CAF-11	11	7	6	1	
	CAF-12	5	1	3		2
	CAF-13	4	1	2		1
		348	83	199	1	117
M (App.1)	P-1	119	197	69	128	
	P-2&CAF-7	359	401	207	194	
	CAF-8	100	24	58		34
	P-3&CAF-9	307	164	177		13
	CAF-10	17	6	10		4
	P-4&CAF-11	287	81	166		85
	P-5&CAF-12	176	53	102		49
	P-6&CAF-13	64	15	37		22
	P-7	23	1	13		12
	P-8	12	4	7		3
	P-9	1	0	1		1
		1465	946	847	322	223
I	P-1&P-2	307	559	177	382	
	P-3,4,5&CAF-9,10	771	296	446		150(Group C)
	P-6,7,8,9&CAF-11,12	112	27	65		38(Group B)
	CAF-13	4	1	2		1(Group A)
		1194	883	690	382	189

Tab 1 - Inclosure 4



Comparison of ASA and Fort Monmouth

Based upon relative strengths in P-grades only

ASA total 654

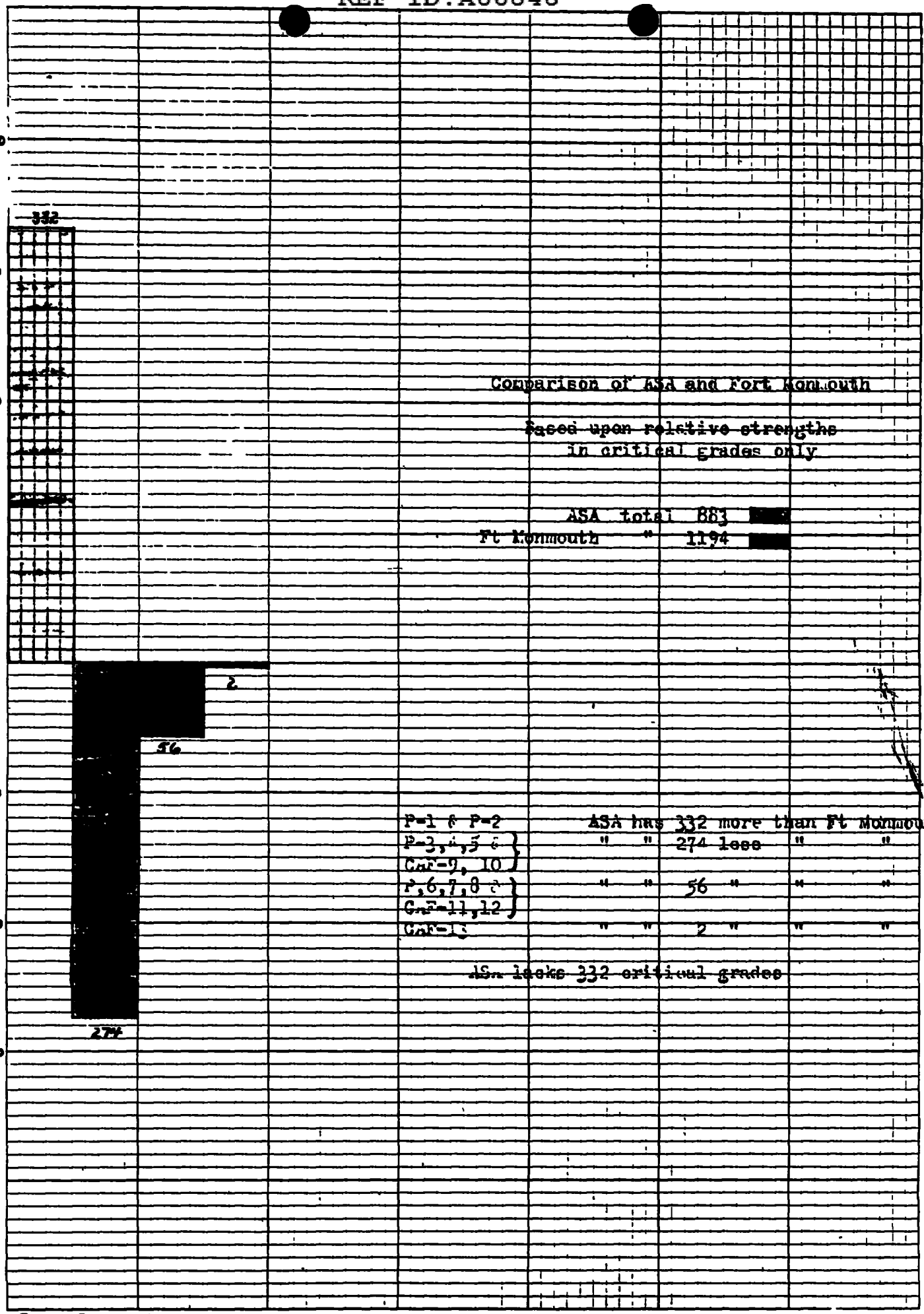
Ft Monmouth " 1117

0

P-1 ASA has 106 more than Monmouth
P-2 " " 218 " " " "
P-3 " " 5 less " " "
P-4 " " 137 " " " "
P-5 " " 79 " " " "
P-6 " " 32 " " " "
P-7 " " 17 " " " "
P-8 " " 5 " " " "
P-9 ASA has none; Monmouth has one

ASA lacks 324 critical P-grades

GRAPH.



Comparison of ASA and Fort Monmouth

~~Based upon relative strengths~~
in critical grades only

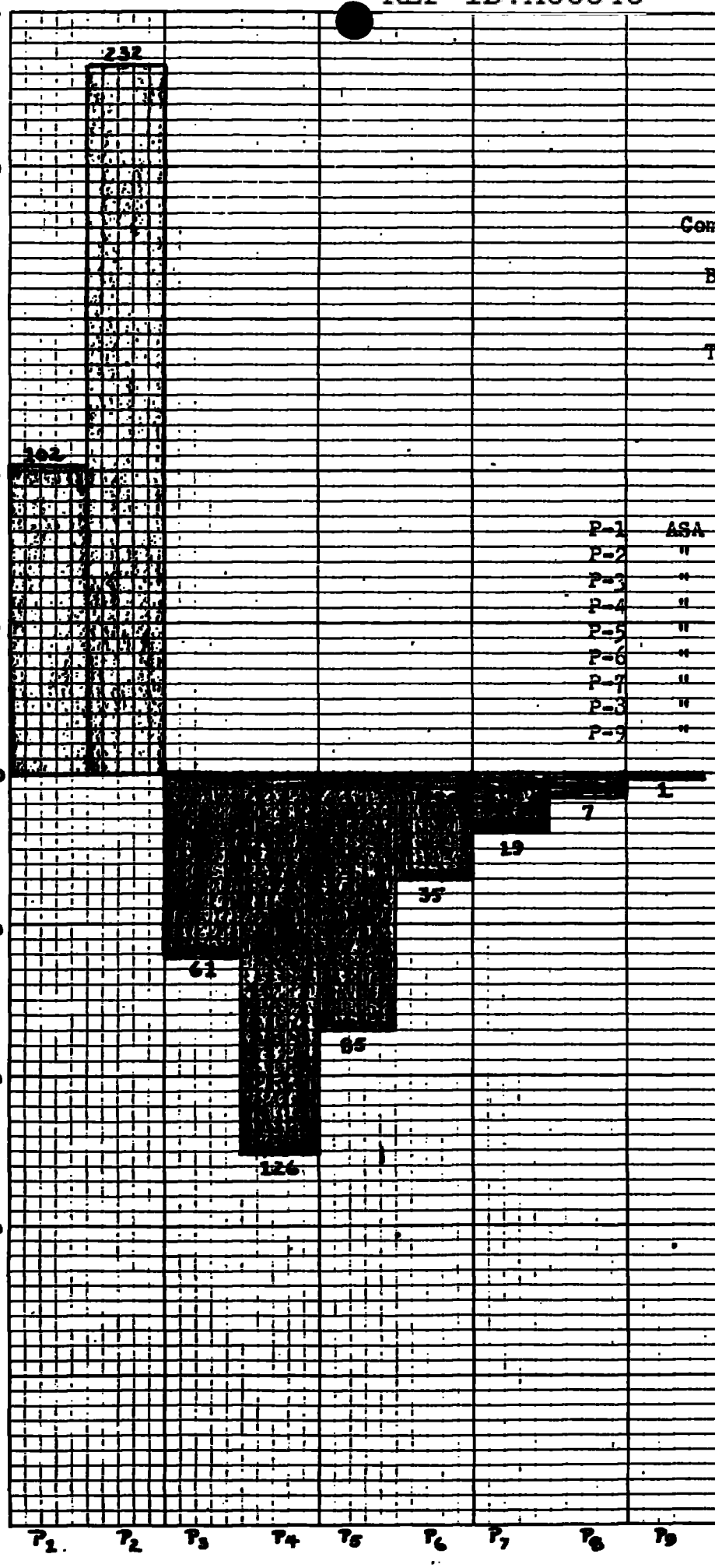
ASA total 883 [redacted]
Ft Monmouth " 1194 [redacted]

P-1 & P-2	ASA has 332 more than Ft Monmouth	
P-3, 4, 5 & CAF-9, 10	" " 274 less	" "
P, 6, 7, 8 & CAF-11, 12	" " 56 "	" "
CAF-13	" " 2 "	" "

~~ASA lacks 332 critical grades~~

P1 and P2 | P3, 4, 5 and CAF-9, 10 | P6, 7, 8 and CAF-11, 12 | CAF-13

GRAPH G'



Comparison of ASA and SCEL

Based on relative strengths in P-grades only

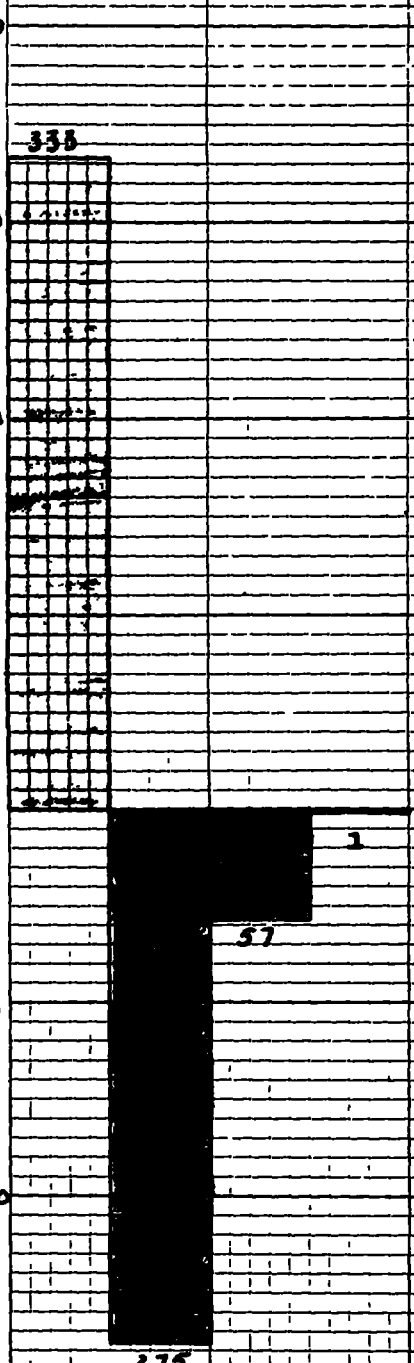
Total P-grade strengths

ASA 872

SCEL 955

P-1	ASA has 102 more than SCEL	
P-2	" " 232 " " "	
P-3	" " 61 less " "	
P-4	" " 126 " " "	Total
P-5	" " 85 " " "	number o
P-6	" " 35 " " "	critical
P-7	" " 19 " " "	grades
P-8	" " 7 " " "	lacking
P-9	" " none; SCEL has one	334

P-GRADES GRAPH



Comparison of ASA and SCEL in critical grades

Based upon relative total strengths in P and CAF grades only

ASA [redacted]

SCEL [redacted]

P-1 & 2	ASA has 333 more than SCEL
P-3,4,5 and CAF-9,10	ASA has 275 less Group C critical grades
P-6,7,8,(9), & CAF-11,12	ASA has 57 less Group B critical grades
CAF-13	ASA has 1 less Group A critical grade

ASA lacks 333 critical grades

GRAPH

~~CONFIDENTIAL~~

8. a. Because of the possibility that in comparing Fort Monmouth and the ASA in respect to their relative numbers of critical grade positions certain factors not quite obvious might be tending to paint a darker picture of ASA's position than is valid, the same sort of comparisons were again made, but using only the data for the Signal Corps Electronics Laboratories, at Fort Monmouth. Inclosure 6 gives the data as of February 1949 for SCEL and as of 31 March 1949 for ASA.

b. Graphs H and I show how the two organizations compare. It will be noted (Graph H) that on the basis of the comparison between the ASA and SCEL, the ASA lacks 334 critical P-grades and (Graph I), a total of 333 critical grades; on the basis of the former comparison (ASA and Fort Monmouth as a whole), the ASA was shown to lack only 189. This comparison makes the ASA picture much darker instead of lighter.

9. a. Again, and for the same reason mentioned in Par. 8a, a comparison was made between the SCEL and only those positions in ASA which are classified as pertaining strictly to research and development and the salaries for which are accordingly paid out of 610 (research and development) funds. Inclosure 7 gives the data as of February 1949 for SCEL and as of 18 April 1949 for ASA.

b. Graphs J and K show how the two organizations compare. It will be noted in Graph J that on the foregoing basis the ASA lacks approximately 340 P-grades; in Graph K, it lacks approximately 346 critical grades, even more than are indicated in the preceding comparisons.

c. (1) In an article published in the February 1949 issue of FM-TV Magazine (Inclosure 8), the SCEL states:

> "Approximately 10% of the professional men at SCEL are in the $7,400 to $12,500 salary bracket; another 15% in the $6,200 to $7,400 group, and 23% are earning between $5,200 and $6,200."

(2) Having the SCEL figures, they may be compared with those for ASA. The first group ($7,400 to $12,500) corresponds to P-6,7,8, and 9; the second group, to P-5; the third, to P-4. Here is the comparison, based upon relative strengths in P-grades (SCEL - 955; ASA - 572):

OFFICE OF THE CHIEF SIGNAL OFFICER
FORT MONMOUTH

PERSONNEL AND WORK LOAD STATISTICS

SIGNAL CORPS ENGINEERING LABORATORIES

FEBRUARY 1949

FORT MONMOUTH
NEW JERSEY

CIVILIAN PERSONNEL

ACTUAL STRENGTH BY CLASSIFICATION AND SEX

CLASSIFICATION		MALE	FEMALE	TOTAL
SCEL TOTALS		2097	557	2654
PROFESSIONAL	P TOTAL	919	36	955
	P-9	1	0	1
	P-8	12	0	12
	P-7	22	0	22
	P-6	56	0	56
	P-5	150	1	151
	P-4	226	1	227
	P-3	229	13	242
	P-2	139	18	157
	P-1	84	3	87
SUB-PROFESSIONAL	SP TOTAL	223	35	258
	SP-8	108	2	110
	SP-7	57	5	62
	SP-6	29	7	36
	SP-5	15	14	29
	SP-4	10	7	17
	SP-3	2	0	2
	SP-2	2	0	2
CLERICAL - ADMINISTRATIVE - CUSTODIAL	CAF TOTAL	258	468	726
	CAF-13	2	0	2
	CAF-12	2	0	2
	CAF-11	4	0	4
	CAF-10	4	2	6
	CAF-9	15	2	17
	CAF-8	7	2	9
	CAF-7	57	10	67
	CAF-6	21	9	30
	CAF-5	40	40	80
	CAF-4	31	122	153
	CAF-3	56	155	211
	CAF-2	19	126	145
CRAFTS - PROTECTIVE - CUSTODIAL	CPC TOTAL	51	17	68
	CPC-10	1	0	1
	CPC-9	1	0	1
	CPC-7	3	0	3
	CPC-6	4	0	4
	CPC-5	2	0	2
	CPC-4	9	1	10
	CPC-3	29	16	45
	CPC-2	2	0	2
UNGRADED	UNG TOTAL	636	11	647
	G-28	1	0	1
	G-27	2	0	2
	G-26	2	0	2
	G-25	1	0	1
	G-24	4	0	4
	G-23	5	0	5
	G-22	4	0	4
	G-21	7	0	7
	G-20	37	0	37
	G-19	43	0	43
	G-18	35	0	35
	G-17	48	0	48
	G-16	151	0	151
	G-15	49	2	51
	G-14	19	1	20
	G-13	13	0	13
	G-12	48	2	50
	G-11	4	0	4
	G-10	2	0	2
	G-9	4	0	4
	G-8	4	0	4
	G-7	11	4	15
	G-6	2	0	2
	G-5	93	2	95
	G-4	2	0	2
	G-3	7	0	7
	G-2	36	0	38

AUTHORIZED AND ACTUAL STRENGTH BY MONTHS

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
	1948								1949			
AUTHORIZED CIVILIAN POSITIONS	2645	2645	2645	2645	2645	2645	2757	2757				
ACTUAL CIVILIAN STRENGTH	2334	2539	2644	2630	2636	2634	2634	2654				

DISTRIBUTION OF DEPARTMENT OF THE ARMY CIVILIAN EMPLOYEES BY SERVICE AND GRADE

DATE OF REPORT *(As of)*: 31 March 1949

REPORTS CONTROL SYMBOL CSCSO-52

FROM: Army Security Agency (ORGANIZATION)

TO: Including ASA School, LWOP and WAE (COMMAND OR AGENCY)

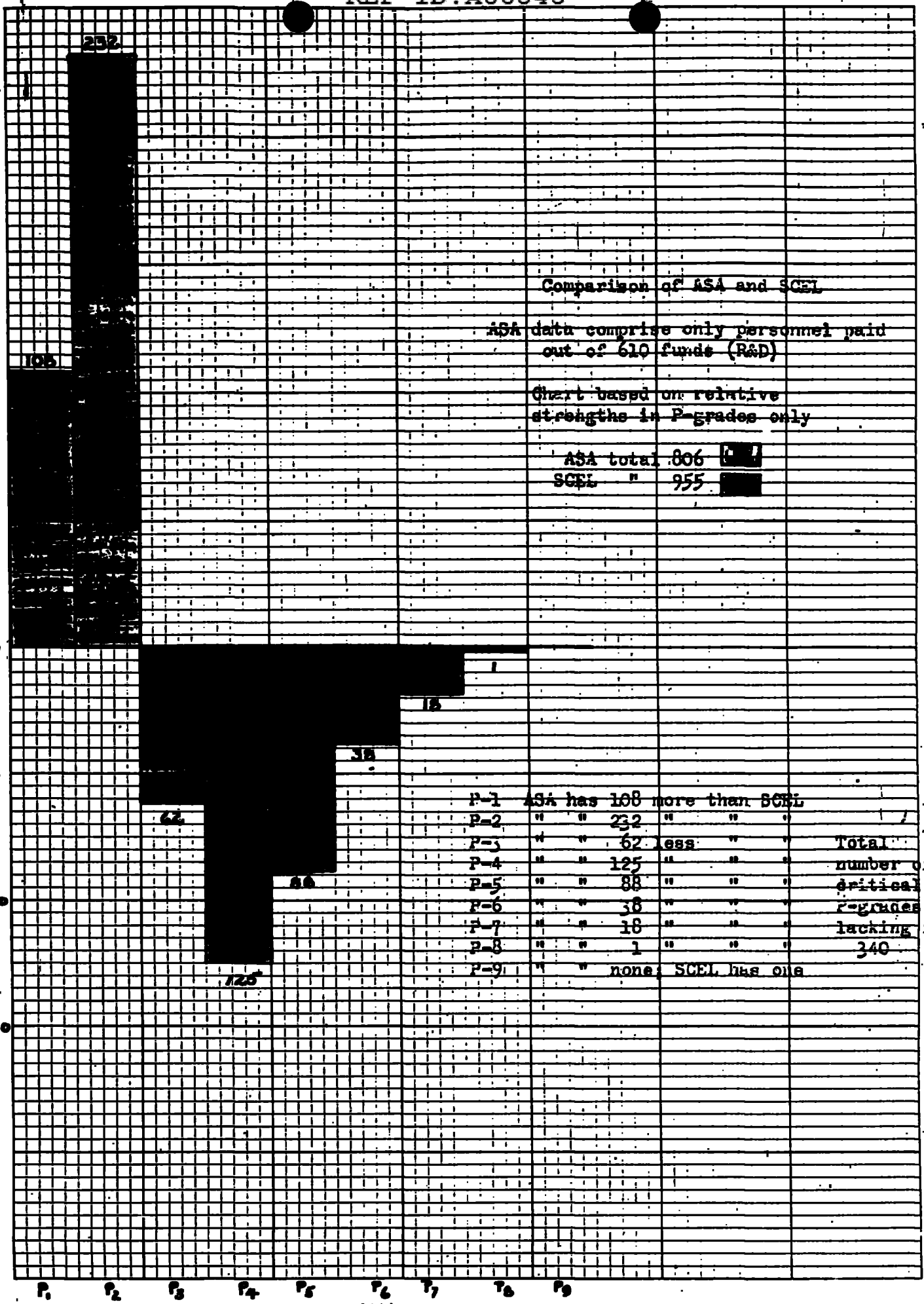
SERVICE AND GRADE	TOTAL (blocks) ASA (A)	NUMBER SUBJECT TO LIMITATION: ASAP [illegible] (B)	NUMBER SUBJECT TO LIMITATION: 7005th [illegible] (C)	GRAND TOTAL [illegible] (D)	NUMBER EXEMPT FROM LIMITATION AND/OR DETERMINATION[2] (E)
TOTAL	[1] 2690	12	124	2826	
PROF—TOTAL	671	0	1	672	
1	182			182	
2	375			375	
3	160			160	
4	80		1	81	
5	53			53	
6	16			16	
7	1			1	
8	4			4	
9					
CAF—TOTAL	1501	12	9	1322	
1					
2	134		1	135	
3	328	1	4	333	
4	449	3	3	455	
5	235	5	1	241	
6	69			69	
7	39	1		40	
8	16			16	
9	12			12	
10	9			9	
11	5	1		7	
12	3	1		4	
13	1			1	
14					
15					
16					
SP—TOTAL	238	0	0	238	
1					
2					
3					
4					
5	86			86	
6	65			65	
7	78			78	
8	9			9	
CPC—TOTALS	65	0	60	125	
1					
2			41	41	
3	21		1	22	
4	1		2	3	
5					
6			7	7	
7	15		3	18	
8	19		3	22	
9	9		1	10	
10			2	2	
Ungraded CONSULTANTS AND EXPERTS	215		54	269	
CONTRACT SURGEONS PHYSICIANS CHAPLAINS					

[1] *Equals sum of totals reported on lines 3 and 6 DA AGO Form 805 as of same date*
[2] *From column (f) reverse side*

DA AGO FORM 1 DEC 47 224 SUPERSEDES WD AGO FORM R-5528 1 SEPT 47 WHICH IS OBSOLETE.

16—84991-2

Tab 2-Incl. 6



Comparison of ASA and SCEL

ASA data comprise only personnel paid out of 610 funds (R&D)

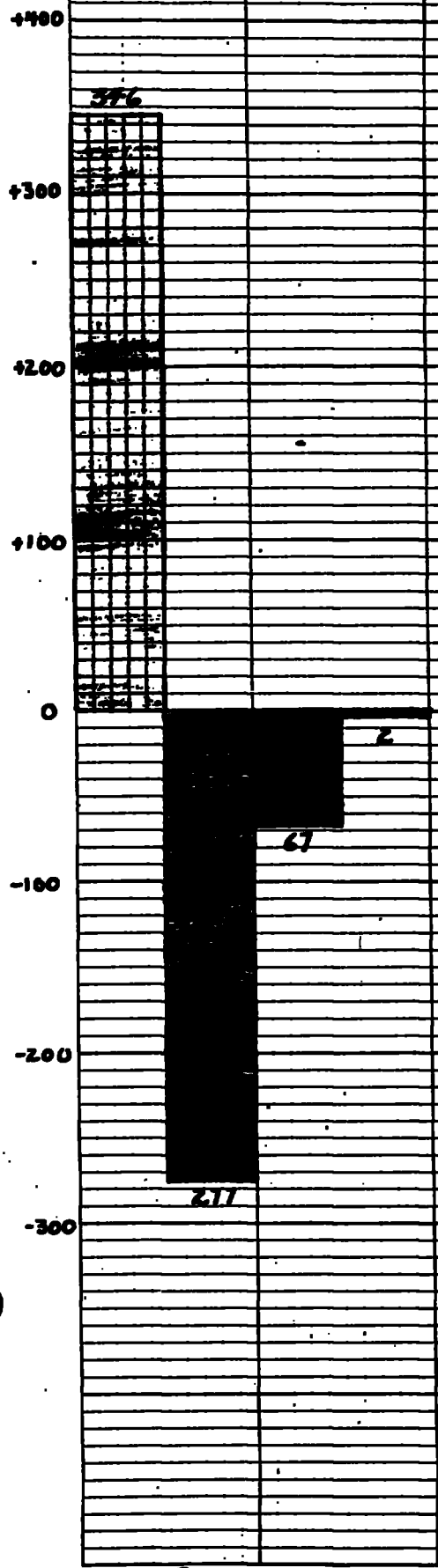
Chart based on relative strengths in P-grades only

ASA total 806
SCEL " 955

P-1	ASA has	105	more	than	SCEL
P-2	" "	232	"	"	"
P-3	" "	62	less	"	"
P-4	" "	125	"	"	"
P-5	" "	88	"	"	"
P-6	" "	38	"	"	"
P-7	" "	18	"	"	"
P-8	" "	1	"	"	"
P-9	" "	none; SCEL has one			

Total number of critical P-grades lacking is 340

GRAPH 3



Comparison of ASA and OCSL

ASA data comprise only personnel paid out of 610 funds (R&D)

Chart based on relative strengths in P-grades and CAF-9,10, 11,12,13 grades

ASA total 979 [redacted]

OCSL total 906 [redacted]

P-1 & P-2	ASA has approximately 346 more	
P-3,4,5 & CAF-9,10	" " "	277 less
P-6,7,8, (9) & CAF-11,12	" " "	67 "
CAF-13	" " "	2 "

ASA lacks approximately 346 critical grades

P-1 and P-2	P-3,4,5 CAF-9, 10	P-6,7,8 (9), CAF-11,12	CAF-13

GRAPH

COPY

18 April 1949

CIVILIAN PERSONNEL PAID FROM 610 FUNDS

P-8	2	CAF-10	1	SP-8	7	CPC-3	2
"-7	1	" 9	1	" 7	12		
"-6	9	" 8	1	" 6	2		
"-5	39	" 7	1	" 5	12		
"-4	67	" 6	4	Total	33	Ungraded	75
"-3	142	" 5	26				
"-2	364	" 4	20				
"-1	182	" 3	8				
Total	806	" 2	1				
		Total	63				

Totals:

P	806
SP	33
CAF	63
CPC	2
Ung	75
Total	979

JOHN L. SULLIVAN
Chief, Personnel and
Training Branch

Tab 1 - Incl 7

OPPORTUNITIES FOR ENGINEERS

THE SIGNAL CORPS' PEACETIME PROGRAM OF RESEARCH AND DEVELOPMENT OPENS OPPORTUNITIES FOR SPECIALIZED WORK — *By* HAROLD B. CHURCHILL*

NEARLY every engineer, at some time in his professional career, reaches a point where he pauses to take stock of the progress he has made, and his probable future attainments. The proportions vary, but the basic ingredients of success are the engineer's particular abilities and qualifications, and the conditions of employment under which he works. If the algebraic sum of these two factors is a high value, preceded by a plus sign, the individual has reason to congratulate himself.

But engineers sometimes find that they have been side-tracked from the line of work they want to follow, or that they are limited in the attainment of full professional stature by lack of facilities. Then, a definite change is indicated.

Opportunities at SCEL:

At the Signal Corps Engineering Laboratories, Fort Monmouth, N. J., we sometimes use a simple chart to summarize the advantages and opportunities open to those who join our staff, and to help them make comparisons with other positions. The chart asks nine questions:

1. Will you have outstanding facilities for scientific research?

2. A choice of more than 20 scientific fields within one organization?

3. Freedom to develop new ideas in the advancement of science, regardless of foreseeable commercial value?

4. Wide opportunity to transfer from one field to another as specialization develops, without change of employers?

5. Can you keep in close and continual touch with scientific progress at leading academic and commercial laboratories?

6. Can you continue your education and acquire higher academic degrees from a university of recognized standing, while progressing on your job?

7. Is the salary good, with open opportunity for promotion?

8. Is there security and reasonable assurance of uninterrupted employment, independent of economic cycles?

9. Will you have ideal country living with ready access to a large metropolitan area? Suitable housing, schools, and a wide choice of recreation?

The Signal Corps Engineering Laboratories offer all these basic advantages to qualified engineers and research workers.

*Chief of Technical Information, Signal Corps Engineering Laboratories, Fort Monmouth, N. J.

SCEL Development Projects:

Staffed by civilian scientists working in concert with technical officers of the Signal Corps, SCEL has developed or sponsored during the last ten years a very large proportion of the electronic equipment which supports our Army.

The total number of major fields probably offers the widest opportunities for technical employment of any scientific organization today:

1. Radiological detection research.
2. Photographic and camera development.
3. Sound, heat, and light detection and projection.
4. Thermionics and vacuum tube development.
5. Micro-optics.
6. Enemy missile and gunfire detection.
7. Electron acoustics.
8. Facsimile development.
9. Telephone, telegraph, and wire systems.
10. Electronic power supply research.
11. Internal combustion power units.
12. Meteorological research.
13. Radio transmitter and receiver development.
14. Primary and secondary battery and battery substitute development.
15. Generator and dynamotor research.
16. Production engineering and maintenance.
17. Radio interference suppression.
18. Antennas and propagation research.
19. Component part and circuit element research and development.
20. Crystal and frequency control research.
21. Specifications and standards.

Furthering this initial choice is the traditional SCEL policy of acquainting professional men with activities in all branches, to keep them abreast of projects in fields related to their own. Thus during the first year or two of employment for example, transfer to different specializations is readily possible, permitting each man to become channeled into the field where he finds himself best adapted.

Organization of Facilities:

Research and development in the Signal Corps Engineering Laboratories proceed in three separate but closely integrated laboratories, each equipped with advanced technical apparatus for work in the fields under continuous study by SCEL.

These laboratories are Evans Signal Laboratory, Belmar, N. J.; Coles Signal Laboratory, near Red Bank, N. J.; and Squier Signal Laboratory, at Fort Monmouth, N. J.

Research and development in each field centers in a specific laboratory, with overall technical and administrative control exercised at Headquarters, SCEL, Squier Signal Laboratory.

Each equipped with the most modern machine shop facilities, the three Laboratories range over an area of more than 300 acres, providing test sites for any activity from mobile television to radiosonde flight.

In many cases the engineer follows the development of an embryo idea, often his own, through to the completion of the finished product.

While the engineer begins his experiments, precision parts and components are produced in SCEL shops. New special-purpose vacuum tubes may be needed. These are fabricated, and a model constructed. Experiments may proceed on the ground, aloft by balloon, rocket, or aircraft, or in the controlled atmosphere of chambers providing any required combination of pressure, temperature, and humidity.

Tests completed, the engineer may publish a report contributing his findings to basic knowledge in the field. Or, if the device meets a military need, SCEL production and maintenance specialists are assigned to work closely with him to effect transition of his prototype model into production for national defense.

Outside Contacts:

The engineer joining SCEL has a singular opportunity to keep abreast of nation-wide progress in the field he selects since, in its direct research and development responsibility for the U. S. Army, SCEL acts as the technical catalyst between industry and national defense.

In guiding and assisting in this nation-wide program, SCEL engineers have an unparallelled opportunity for contact and information exchange with leading authorities in their fields, and for the increase of professional prestige.

There is also the opportunity to publish the findings of their work in both official media and the nation's technical press. They have complete freedom in this respect, except where the subject or discovery is so important to national defense that it must be held under security for our country's benefit.

(Concluded on page 35)

OPPORTUNITIES AT SCEL

(Continued from page 24)

Salaries at SCEL:

A graduate with a Bachelor's degree in engineering or physics, for example, can start at SCEL on a salary of approximately $3,000.

Or, if he has a Master's degree in the appropriate field, $3,727.20; and with a Doctor's degree, the entrance salary becomes $4,479.60.

For each year of successful service, SCEL engineers become qualified for promotion to a higher level. Thus the graduate with a Bachelor's degree may receive $3,727.20 after the first year, $4,479.60 after the second, and $5,232 after the third. Comparable increases range up to $12,500 for graduates with Master's or Doctor's degrees.

Separate from these full-grade promotions are in-grade or step promotions if the professional employee does not receive any other promotion during the year. This system provides pay increases of approximately $120 a year in the first three professional grades, and $250 every eighteen months in the higher professional grades if the employee's services are satisfactory. Such seniority salary increase is fully automatic if a full-grade promotion is not received within the 12- or 18-month period.

Approximately 10% of the professional men at SCEL are in the $7,400 to $12,500 salary bracket; another 15% in the $6,200 to $7,400 group, and 23% are earning between $5,200 and $6,200. Nearly all enjoy permanent employment status, insuring the high degree of continuing security so essential to a satisfactory career in research.

Further Academic Studies:

An unusual feature of advancement opportunities at SCEL is that the engineer's academic education is not cut short by his employment.

Academic facilities are provided at SCEL for advanced education under the direction of a leading university, with classes held within the laboratories. This graduate program presently offers credits leading to a Master's degree, while others are planned leading to a Doctorate. Half of the class attendance time is allowed during working hours at full pay; the other half is on the engineer's own time. He pays only half the nominal tuition fee of $5 a semester-hour, plus book costs.

Applications for Employment:

Employment application forms can be obtained by those interested in joining the SCEL staff from the Chief Civilian Branch, Personnel Division, Fort Monmouth, N. J., and any detailed information will be supplied.

RESEARCH AND DEVELOPMENT DIVISION

AS-70

Proposed Promotions Subject to Survey

AS-70

NAME	PRESENT POSITION	GRADE	LAST PROMOTION	PROPOSED GRADE
Rose, Alfred W	O-RL-134	CAF-10	None	CAF-11
		AS-73		
Brownstein, Herman	O-RD-IE-6	P-4	1-26-47	P-5
Fadner, Lawrence T	O-RD-IE-186-1	P-3	None	P-4
		AS-74		
Napier, Charles H	O-RD-EM-45-1	P-4	None	P-5
Smith, Willard F	O-RD-EM-111	P-2	None	P-3
		AS-75		
Flaherty, Maurice	O-RD-LS-259	P-3	5-16-48	P-4
		AS-76		
Akeley, Evelyn N	O-RD-C-112	P-4	6-16-44	P-5
Chiles, J Richard	O-RD-C-28	P-4	11-3-46	P-5
Fahringer, Mary M	O-RL-C-15	P-3	12-29-46	P-4
Goldner, Isadore	O-RD-C-27	P-3	None	P-4
Kanter, Jules I	O-RL-C-529	P-3	2-22-48	P-4
Littman, Morris M	O-RD-C-614	P-3	None	P-4
		AS-77		
Bankson, Harold D	O-RD-E-17	P-4	8-26-45	P-5

Promotions on which Action is Pending

		AS-71		
Rosen, Rose C	O-RL-15	P-2	9-7-47	P-3
		AS-76		
Blum, Joseph	O-RD-C-25-1	P-2	None	P-3
Metcalf, Phyllis	O-RL-C-50-2	P-3	5-19-46	P-4

Personnel Downgraded when Ceiling was first Applied

AS-70

NAME	PRESENT POSITION	GRADE	LAST PROMOTION	PROPOSED GRADE
*Douglas, James H	O-RD-349	P-5	8-25-46	P-6
*Levenson, Arthur J	O-RL-350	P-5	None	P-6

AS-71

*Spalding, Frederick	O-RL-351	P-5	None	P-6

AS-70

RECAPITULATION

Estimated Additional Critical Grade Authorisations Required

Group A	-	0
Group B	-	4
Group C	-	12
TOTAL	-	16

*Downgraded 29 June 1947 due to application of critical grade ceiling.

AS-80 5 April 1949

ADDITIONAL IDENTICALS REQUIRING ESTABLISHMENT

Name	Present Position	Grade	Date Last Promotion	New Position	Grade
AS-81					
Clyde Hungerford	O-S-T-175-1	P-3	20 Mar 1949	O-S-T-174-1	P-4

Incl. 9 page 3

AS-30 5 April 1949

PROMOTIONS FOR WHICH A SURVEY IS REQUIRED

Name	Present Position	Grade	Date Last Promotion	New Grade
AS-82				
William V. Russo	O-S-MAT-993	P-5	30 May 1948	P-6
Richard Battey	O-S-MAT-994	P-4	30 May 1948	P-5
Curtis W. Wernle	O-S-MAT-992	CAF-9	30 May 1948	CAF-10
AS-83				
Warren F. Beck	O-S-METH-308	P-4	15 Dec 1946	P-5
AS-84				
Brice H. Livingston	O-S-P-222-2	P-2	19 Sep 1948	P-3
Ollie Y. Jennings	O-S-P-222	P-2	26 Dec 1948	P-3
John E. Allen	O-S-P-222-1	P-2	12 Jan 1948	P-3
AS-85				
Arthur A. Wieder	O-S-MAIN-384	P-4	16 May 1948	P-5
Eldred W. Ayers	O-S-MAIN-160-4	CPC-10	15 Dec 1946	P-3
Joseph Falcone	O-S-MAIN-160-10	CPC-10	10 Aug 1947	P-3

AS-80 5 April 1949

PROMOTIONS FOR WHICH SURVEY OR OTHER ACTION IS PENDING

Name	Present Position	Grade	Date Last Promotion	New Grade
AS-80				
Harry L. Clark	O-S-130	P-6	30 Aug 1946	P-7
Otis D. Wilson	O-S-195	P-2	25 Aug 1947	P-3
AS-83				
Frank C. Austin	O-S-METH-42	P-5	3 Nov 1946	P-6
AS-85				
Kenneth Kuhn	O-S-MAIN-162	P-5	30 Oct 1946	P-6

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AS-80 5 April 1949

AUTHORIZATION REQUIRED FOR ESTABLISHMENT

Title	Grade	Duty
AS-81 Electrical Engineer	P-5	Chief, Facilities Section
AS-84 Traffic Analyst	P-4	Asst. Chief, AS-84

AS-80

RECAPITULATION

Estimated Additional Critical Grade Authorizations Required

Group A - 0
Group B - 3
Group C - 5

TOTAL - 8

Positions Presently Occupied By Military Personnel For Which A Civilian Replacement Will Require A Critical Grade

Position	Name	Military Grade	Civilian Grade
AS-90			
Asst. Chief, AS-90	M. H. Klein	Major	P-6
Chief, AS-95	M. H. Klein	Major	P-6
AS-94			
Radio Engineer	W. B. Palioca	1st Lt.	CAF-9

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Personnel To Be Promoted On Additional Identical Positions

AS-93

Name	Pres. Pos.	Grade	Date Last Prom.	Nev Pos.	Grade
R. Mancini	OIC-3929	P-2	Jan. '48	OIC-4318	P-3
P.R. McKenzie	" -112	P-2	Sept. '44	" -5533	P-3
M. Webb	" -77	P-2	Jan. '47	" -76	P-3
E. Sarasohn	" -77	P-2	Aug. '46	" -76	P-3
R. Lee	" -3929	P-2	Jan. '47	" -4318	P-3
C. Jacklin	" -3929	P-2	June '47	" -4318	P-3
A. Keosian	" -151	P-2	Nov. '47	" -5535	P-3
F. Moss	" -151	P-2	Jan. '46	" -3928	P-3
J. McDowell	" -94	P-2	Aug. '44	" -97	P-3
A. Ferguson	" -3929	P-2	Apr. '47	" -4318	P-3
R. Stewart	" -3929	P-2	Feb. '47	"- 4318	P-3
W. Kazmar	" -151	P-2	Mar. '46	" -3928	P-3
E. Wright	" -94	P-2	Aug. '44	" -97	P-3
B. Dudley	" -94	P-2	Feb. '47	" -97	P-3
C. Roche	" -3929	P-2	July '45	" -4318	P-3
S. Osinski	" -151	P-2	Dec. '47	"3928	P-3
C. Morris	" -94	P-2	June "45	" -97	P-3
Y. Birks	" -95	P-2	Sept. '45	" -97	P-3
J. Moody	" -4318	P-3	Dec. '47	" -15781	P-4
A. Harrington	" -147	P-3	May '46	" -15781	P-4
E. Gietkowski	" -3928	P-3	Apr '47	" -15781	P-4
H. Gibbons	" -188	P-3	May '46	" -5786	P-4
J. Murphy	" -3928	P-3	Jul. '46	" -15781	P-4

AS-95

H. Bevans	OIID-5	P-2	Feb. '47	OIID-4	P-3
J. Carey	" -5	P-2	Mar. '48	" -4	P-3
M. Moore	" -5	P-2	July '47	" -4	P-3
M. Mulhearn	" -7	P-2	Oct. '45	" -4	P-3
M. Miller	" -1045	CAF-8	Nov. '47	" -352	P-3

AS-97

S. O'Toole	OISP-20-6	P-2	Mar. '46	OISP-16	P-3
H. Putnam	" -20-8	P-2	Jan. '47	" -16	P-3
R. Johnston	" -20-5	P-2	Mar. '48	" -16	P-3
B. Kohout	" -20-10	P-2	Oct. '47	" -16	P-3
J. Coen	" -20-3	P-2	Nov. '46	" -16	P-3
J. Gray	" -46-2	P-2	Dec. '46	" -108	P-3
M. Staton	" -34-1	P-2	Dec. '46	" -108	P-3
H. Keller	" -45	P-2	Dec. '46	" -108	P-3
S. Snook	" -981	P-2	Mar. '46	"-108	P-3
J. Wilson	"-978-1	P-2	Dec. '46	" -977	P-3
R. Sullivan	" -978-3	P-2	Dec. '46	" -977	P-3
F. Kuipers	" -124-5	P-2	Nov. '45	" -34	P-3

Incl. 9.

AS-97 (Cont'd)

Name	Pres. Pos.	Grade	Date Last Prom.	Nov Pos.	Grade
M. Melgaard	OISP-124-3	P-2	Mar. '46	OISP-34	P-3
I. Schops	" -124-12	P-2	Mar. '46	" -34	P-3
C. Long	" -112-8	P-2	Jan. '46	" -1040	P-3
G. Grabeel	" -112-7	P-2	Nov. '44	" -1040	P-3
V. Wiley	" -112-2	P-2	Dec. '46	" -1040	P-3
V. Klaessy	" -982-2	P-2	Dec. '46	" -1040	P-3
M. Barrows	" -982-	P-2	Jan. '47	" -1040	P-3
R. Darby	" -20	P-2	Sept. '48	" -16	P-3

Promotions For Which A Survey Is Required

Name	Pres. Pos.	Grade	Date Last Prom.	New Grade
AS-93				
N. Martin	OIC-3170	P-2	Jan. '47	P-3
L. Derthick	" -3561	P-2	Jul. '45	P-3
E. Carman	" -3874	P-2	Jun. '45	P-3
M. Irwin	" -3566	P-2	Mar. '47	P-3
M. Hammes	" -95	P-2	Aug. '45	P-3
J. King	" -95	P-2	Jan. '47	P-3
R. Baruzzi	" -223	P-2	Feb. '47	P-3
R. Faust	" -76	P-3	Aug. '46	P-4
W. Wall	" -3557	P-3	Jun. '45	P-4
A. O'Brien	" -89	P-3	May '46	P-4
A. Checkoway	" -5562	P-3	Feb. '48	P-4
F. Blank	" -3565	P-3	Mar. '47	P-4
k. Devereux	" -180	P-3	Feb. '46	P-4
E. Stephens	" -4318	P-3	Jan. '45	P-4
H. Herczog	" -2424	P-4	Jul. '46	P-5
F. Brugger	" -03	P-4	Jun. '44	P-5
k. Weideman	" -15781	P-4	Dec. '45	P-5
C. Munn	" -110	P-4	Feb. '47	P-5
M. Mitchell	" -5157	P-4	Dec. '47	P-5
AS-94				
A. Galusha	IC-1061	P-2	Apr. '48	P-3
J. Dolbear	" -56	P-3	Mar. '46	P-4
H. Brown	" -991	CAF-10	Apr. '48	CAF-11
AS-95				
K. Jansen	OIID-18	P-2	Aug. '46	P-3
R. Leyrer	" -5	P-2	Nov. '47	P-3
C. Heriot	" -5	P-2	Dec. '46	P-3
F. Bernbach	" -4	P-3	Jan. '47	P-4
F. Porras	" -4	P-3	Jan. '48	P-4
C. Tevis	" -4	P-3	Apr. '46	P-4
AS-96				
D. Marston	OIT-2	P-5	Nov. '47	P-6

Promotions On Which Survey Or Other Action Is Pending

Name	Pres. Pos.	Grade	Date Last Prom.	New Grade
AS-92				
A. Daniels	OIM-407	P-3	Aug. '46	P-4
S. Powers	" -407	P-3	Aug. '46	P-4
W. Sharp	" -407	P-3	Feb. "47	P-4
AS-94				
G. Porter	IC-1265	CAF-11	July '46	CAF-12
R. Neill	IC-545	P-4	Oct. '46	P-5
R. Alde	IC-56	P-3	Sept. '46	P-4
AS-95				
E. Power	OIID-4	P-3	Nov. '44	P-4
AS-97				
M. Calhoun	OISP-58-3	P-2	Aug. '46	P-3
C. Berry	" -1049	P-3	Dec. '46	P-4
S. Norland	" -34-4	P-3	Jun. '46	P-4
C. Phillips	" -1040	P-3	Oct. '46	P-4
O. Adams	" -14	P-4	Mar. '48	P-5
J. Gurin	" -11	P-4	Jul. 48	P-5
J. Lively	" -121	P-4	Oct. '46	P-5
H. Sauerwein	" -122	P-4	Mar. '47	P-5
C. Porter	" -29	P-4	Dec. '46	P-5
T. Squier	" -52	P-4	Nov. '46	P-5
A. Hesse	" -42	P-4	Dec. '45	P-5
A. Lewis	" -101-5	P-4	Feb. '46	P-5
* P. Gerhard	" -975-1	P-4	Jan. '45	P-5
* R. Gibson	" -58	P-2	Feb. '47	P-3

AS-90

RECAPITULATION

Estimated Additional Critical Grade Authorizations Required

Group A - 0
Group B - 3
Group C - 60

TOTAL - 63

* Downgraded 29 June 1947 due to application of critical grade ceiling.

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