

2902
8/25/33

~~CAPTAIN WILBUR R. VAN ALKEN~~
~~E-1~~ ~~22~~

Serial No. 22

Senior Class, 1934

1857-A

TACTICAL PROBLEM II

BLUE SITUATION

ORANGE SITUATION

Issued ----- 5 September 1933
Solutions to be completed
prior to Friday, 1230 ---- 15 September 1933

DECLASSIFIED IAW DOD MEMO OF 3 MAY 1972, SUBJ:
DECLASSIFICATION OF WWII RECORDS

DEPARTMENT OF OPERATIONS
Naval War College
Newport, R.I.
September, 1933

~~RESTRICTED~~

Not to pass out of the hands of officers of the U.S. Naval or
Military Service.

This pamphlet should not be bound with the Solution but should
be returned to the Publication Section, Room N-11, as soon after
the Critique, 19-20 October, as may be convenient.

BLUE SITUATION

MOTIVES: (1) The Estimate of a Tactical Situation.
(2) Study of the Conduct of a Fleet Battle.

GENERAL SITUATION: BLUE and ORANGE have been at war six months.

BLUE, on the strategic offensive, has control of the PHILIPPINES with the BLUE Main Fleet based at MANILA, and has deprived ORANGE of all bases south of Latitude Twenty. The principal Mandate Islands, which have been used as bases by ORANGE in resisting the advance of the BLUE Fleet across the PACIFIC, have been seized by BLUE. Convoys under strong escort are operating between BLUE home territory and MANILA, fueling en route in HAWAIIAN waters and at TRUK, which BLUE holds with enough force to withstand a raid by aircraft or surface ships. All entrances to TRUK except Northeast Pass have been effectively closed; Northeast Pass is mined and netted. The BLUE Fleet is preparing to move northward to seize an advanced base nearer ORANGE home territory. On 24 July BLUE Airdiv Two bombed the ORANGE base in the PESCADORES.

The ORANGE Fleet is based in home waters. Operations with submarines and light surface forces against BLUE's line of supply between OAHU and MANILA have inflicted only minor damage.

No major fleet action has yet taken place, but three BLUE capital ships have been mined or torpedoed, and are still under repair; and there have been various losses in other types on both sides.

SPECIAL SITUATION:- Vice Admiral S has been assigned the task of directing and safeguarding BLUE convoys on the OAHU-MANILA route. The Commander of the TRUK base is subject to his orders. He has divided his escort forces into two detachments, one under his own command operating westward from TRUK, the other eastward.

Eastern and western escorts meet at TRUK and exchange convoys.

On 14 August two convoys and the two escort forces are at TRUK. Convoy Six, east-bound is in ballast. Convoy Seven, west-bound, carries material necessary to complete the repairs to damaged BLUE capital ships and to CV-2, which was damaged 24 July. Convoy Seven also carries a large shipment of planes and other equipment essential to BLUE's intended northern operations. The convoy from MANILA (Convoy 6) and the western escort have been fueled. The eastern escort and the convoy from OAHU (Convoy 7) are fueling. Vessels of the TRUK Force and Desron One will be ready for sea at 1800, 14 August, and all other fighting ships will be fueled by 0100, 15 August.

At 0900, 14 August, Vice Admiral S received from his Commander-in-Chief the following despatch:

"Priority. 0014 Large ORANGE Force left BONINS nine August proceeding southward paragraph Early arrival Convoy seven MANILA vital period No reinforcements can be sent you 0600".

At 1100, 14 August, a BLUE VP plane, scouting northward from TRUK, reported a large ORANGE force. As a result of subsequent aircraft reconnaissance during the day, the composition of this ORANGE Force was estimated to be as follows:

- 4 BB of the earlier ORANGE type,
- 3 CC,
- 1 Div. of 4 MYOKO Class CAs,
- 1 Div. of 4 KAKO Class CAs,
- 2 squadrons of DDs each led by a CL,
- 1 squadron of DLs led by a CL,
- 1 CV of large fast type,
- 8 submarines of the fleet type.

The position of this force at noon, 14 August, was about 150 miles north of TRUK. By 1700, it was about 200 miles

northeast of TRUK proceeding at moderate speed on a north-easterly course.

Several ORANGE aircraft were observed during the afternoon by the forces in TRUK, but these made good their escape to the northward before they could be intercepted.

The naval forces available to Vice Admiral S comprise the following:

Escorts

Batdiv 2 (BB-40,41,42,39,37)	5 BB
Crudiv 4 (CAs 24,25,26,27,28)	5 CA
Crudiv 9 (CLs 43,44,45)	3 CL
CV-4, RANGER, at present has both VBs and VTs	1 CV
DL-5	1 DL (Flagship of Des- rons)
Desrons 1, 3 and 5 plus Desdiv 12	3 DL, 43 DD

TRUK Force

Subdiv 7 less SM-1 (SS-123,124,127, 128) plus SS-130	11 SS
11 (SS-158,157,156,155) plus SS-154,153	
CM-4	1 CM
Mindiv 2 plus 6 AM	10 AM
VP-8	6 VP

BLUE ships carry planes as given in the "BLUE Fleet".
The BLUE air force is organized into the following units:

<u>Squadron</u>	<u>From</u>	<u>Planes</u>
VO-2	Batdiv 2	15 VO
VS-10	Crudiv 4	20 VS
VS-9	Crudiv 9	12 VS
VF-7	CV-4	18 VF
VB-3	CV-4	18 VB
VT-3	CV-4	18 VT
VS-1	CV-4	18 VS
VJ	CV-4	4 VJ
VP-8	TRUK	6 VP

Vice Admiral S, on the afternoon of 14 August makes a strategic estimate of the situation in which he deduces his strategic mission to be:

MISSION:- To assure the early arrival of Convoy Seven at MANILA, in order to insure BLUE Fleet supplies. His strategic decision is as follows:

DECISION:- To destroy the ORANGE Force threatening Convoy Seven, by engaging decisively, in a fleet action with all available forces in order to assure the early arrival of Convoy Seven at MANILA.

The Supporting Measures contemplate in general that:-

(a) The entire mobile combatant force, consisting of the escorts plus TRUK Force, will be employed to destroy the ORANGE Force.

(b) The Convoys will remain in the harbor until they can, with safety, be directed to proceed.

The Supporting Measures further contemplate the following operations:-

1. The establishment of an off-shore patrol of DD to cover the approaches to the NORTHEAST PASS during the night, prior to the sortie.
2. A sortie, using NORTHEAST PASS, with zero hour 15 August 0500 and Point of Origin in Lat. 7°-35' N., Long. 152°-05' E. Carrier group may sortie earlier.
3. A search to locate the enemy, and tactical scouting to maintain observation of his disposition and movements.
4. Maneuvering to effect contact between the enemy and own main bodies.
5. A decisive engagement, employing all available forces.
6. A chase, (War Instructions, Chapter XXXVI) to complete destruction of all possible enemy forces.

ASSUMPTIONS:-

(1) Weather on 14 August clear, no wind, sea smooth, barometer high, visibility high, flying conditions excellent, indications of continued fine weather.

(2) All BLUE ships are full of fuel, have full power available and can make their designed speeds. Submarine batteries are fully charged.

(3) The aircraft in Convoy Seven are not available. Smoke apparatus and 1000-lb. and 500-lb. bombs are available for VP Squadron 8. VF planes are Model FF-1. VP are Model P2Y-1. VT carry bombs or torpedoes.

(4) The air station at TRUK has ample facilities for repairing and fueling planes, and has a landing field.

(5) No aircraft are in the air prior to 0500, 15 August.

(6) The mines carried by BLUE AMs and CM are Type Mark VI; adjustable to any depth up to 150 fathoms; may be converted to drifting mines of the antenna type; charge 300-lbs. TNT.

(7) Sunrise 0600. Sunset 1800. No moon.

REQUIRED:- As from Vice Admiral S -

(1) An estimate of the tactical situation, for the purpose of determining a Battle Plan. (This estimate need not be typewritten).

(2) A Battle Plan (typewritten), resulting from the estimate.

(3) Battle Disposition(s) (graphic) as an Annex to the Battle Plan.

(4) Approach Disposition(s) (graphic), as an Annex to the Battle Plan.

(5) The Operation Order (typewritten) to the mobile combatant force, initiating their movement and the operations leading up to the engagement.

(6) Cruising Disposition(s) (graphic), as an Annex to the Operation Order.

(7) Scouting Plan(s) (graphic), as an Annex to the Operation Order.

(8) Communication Plan(s), as an Annex to the Operation Order.

The Sortie Plan will not be required. It will be assumed that a suitable Sortie Plan, which will properly cover the forces during the sortie, and will lead to the formation of the selected Cruising Disposition, is in existence or has been prepared.

Procedure for Playing

All student officers will submit Requirements 1 to 8 inclusive.

The Staff will examine the solutions and select the one to be played. The officer whose solution has been selected will be designated as Vice Admiral S, Commander Escort Forces.

The selected Battle Plan and Operation Order with necessary Annexes will be copied and distributed to the BLUE side.

The command and maneuver staff details will be published.

The playing will begin, as of 15 August 0500, as a Chart Maneuver and will be continued as a Board Maneuver as soon as the two forces are sufficiently close.

ORANGE SITUATION

MOTIVES:- (1) The Estimate of a Tactical Situation.
(2) Study of the Conduct of a Fleet Battle.

GENERAL SITUATION:- BLUE and ORANGE have been at war six months. BLUE, on the strategic offensive, has control of the PHILIPPINES with the BLUE Fleet based at MANILA; and has deprived ORANGE of all bases south of Latitude Twenty. The principal Mandate Islands, which have been used as bases by ORANGE in resisting the advance of the BLUE Fleet across the PACIFIC, have been seized by BLUE. Convoys under strong escort are operating between BLUE home territory and MANILA, fueling en route in HAWAIIAN waters and at TRUK, which BLUE holds with enough force to withstand a raid by aircraft or surface ships. All entrances to TRUK except NORTHEAST PASS have been effectively closed, and NORTHEAST PASS is mined and netted. The BLUE Fleet is preparing to move northward to seize an advanced base nearer ORANGE home territory. On 24 July BLUE Airdiv Two bombed the ORANGE base in the PESCADORES.

The ORANGE Fleet is based in home waters. Operations with submarines and light surface forces against BLUE's line of communications between OAHU and MANILA have inflicted only minor damage.

No major fleet action has yet taken place, but three BLUE capital ships have been mined or torpedoed and are still under repairs and there have been various losses in other types on both sides.

SPECIAL SITUATION:- ORANGE knows that recent BLUE escorts on the OAHU-MANILA route have consisted of two detachments, one of battleships, a carrier, and screening destroyers operating westward from TRUK, and the other of CAs, CLs and DDs operating eastward from TRUK. It is further known that these detachments usually meet at TRUK and exchange convoys.

Bound to and from TRUK they follow various routes. The defenses of TRUK are believed to include minefields and submarine nets, covered by shore batteries; anti-aircraft artillery, and a small force of submarines. The only practicable entrance is NORTHEAST PASS. Reliable information indicates that the permanent air detachments at TRUK consist only of a few VP planes.

Reports considered trustworthy state that the BLUE Commander-in-Chief plans an early advance toward the PESCADORES-NANSEI area, but that this cannot be undertaken before 15 September because of a serious shortage of fuel and aircraft material, and of the necessity of effecting repairs to some of the battleships. The reports further state that fuel is being obtained from BORNEO, and that aircraft replacements and material for repairs to vessels are expected from BLUE home territory.

Admiral OC has been directed to interrupt BLUE's OAHU-MANILA line of communications in order to keep the BLUE Fleet immobile.

For this operation the following force has been assigned him:-

BatCrudiv One	3 (CC 1-3-4)
Batdiv Two	4 (BB 1-2-3-4)
Crudiv Five	4 (CA 28-29-30-31)
Crudiv Six	4 (CA 32-33-34-35)
Desron One 82-93	1 (CL 15) 12 DD
Desron Two 1-12	1 (CL 16) 12 DL
Desron Three 69-80	1 (CL 18) 12 DD
CV-2	1 CV
Subron Four	1 AS
Subdiv 7 I(1-5)	8 SS
" 20 I(53-56-57)	
Train	6 AO

The vessels of this force carry aircraft as given below.
The aircraft are organized in units as follows:

<u>Squadron</u>	<u>From</u>	<u>Planes</u>
VO-2	Batdiv 2	8 VO
VO-4	BatCrudiv One	6 VO
VS-7	Crudiv 5	8 VS
VS-8	Crudiv 6	8 VS
VB-3	CV-2	16 VB
VF-1	CV-2	16 VF
VT-1	CV-2	16 VT
VT-3	CV-2	8 VT
VS-1	CV-2	16 VS

The instructions issued to Admiral OC direct that he start his return to home waters within forty-eight hours of the time his presence beyond the BONINS has been disclosed to BLUE. He has further been informed that a decisive victory over a BLUE detachment, particularly if it involves the loss of BLUE battleships, would be considered of great value in reducing BLUE's relative strength and in increasing ORANGE prestige.

Admiral OC decided the next BLUE convoys would be due at TRUK about 15 August, so he proceeded with all his force to the BONINS. After fueling all ships, he departed from PORT LLOYD 9 August, heading for TRUK. On 13 August he again fueled all ships, at sea, and left his 6 AO and AS-1 behind at a fueling rendezvous.

On 14 August the ORANGE Force approached TRUK from the northeastward, coming within about 150 miles of the island for the purpose of carrying out an air reconnaissance.

This air reconnaissance, which was executed without loss, developed the following BLUE forces in TRUK:

- 3 BB of IDAHO Class plus 1 BB of ARIZONA Class and 1 BB of OKLAHOMA Class - total 5 BB;
- 1 CV of late design and moderate size, probably carries both VB and VT planes;
- 5 CA;
- 3 CL of new design;
- About 45 DD including DLs;
- About 12 submarines of old design;
- A great number of vessels of merchant type;
- Several tugs and small craft.

Several large BLUE planes of the VP type were observed from the ORANGE Fleet during the afternoon, but they escaped toward TRUK before they could be intercepted.

At 1700 on 14 August, Admiral OC and his force were 200 miles northeast of NORTHEAST PASS, proceeding Northeast at a moderate speed.

During the afternoon of 14 August, Admiral OC makes an estimate of the strategic situation, in brief as follows:-

"MISSION:- To interrupt BLUE's OAHU-MANILA line of communications, in order to keep the BLUE Fleet immobile."

"DECISION:- To destroy the first considerable BLUE Force leaving TRUK, by decisive engagement, in order to interrupt BLUE's OAHU-MANILA line of communications."

Supporting Measures contemplate:-

1. A general movement to the northeastward during the early part of the night to avoid possible night attacks on surface vessels.

2. A return toward TRUK in the morning in order to facilitate aircraft observation of that base, and to be in a position to intercept any considerable force which may attempt to leave. The Main Body will be 100 miles 40° from the entrance to NORTHEAST PASS at 0500, 15 August.

3. Early observation of the approaches to TRUK, and of the harbor itself, in order to obtain prompt information of the departure of any considerable force.

4. A search to locate any force which departs, followed by tactical scouting to maintain observation of its composition, disposition and movements.

5. Maneuvering to effect contact between the principal forces.

6. A decisive engagement.

7. A chase (War Instructions, Chapter XXXVI) to complete destruction of all possible enemy forces.

ASSUMPTIONS:-

(1) Weather on 14 August, clear, no wind, sea smooth, barometer high, visibility high, flying conditions excellent. Indications of continued fine weather.

(2) All ORANGE ships have adequate fuel, power for maximum speed, and can make their designed speeds.

(3) Submarine batteries are fully charged.

(4) VF planes are Model FF-1. VT carry bombs or torpedoes.

(5) No aircraft are in the air prior to 0500, 15 August.

(6) It is known that the turrets of all BLUE battleships have been modified to permit of 30° gun elevation.

(7) Sunrise 0600. Sunset 1800. No moon.

(8) ORANGE destroyers carry depth charges, but no mines.

REQUIRED:- As from Admiral OC:-

(1) An estimate of the tactical situation for the purpose of determining a Battle Plan. (This estimate need not be typewritten).

(2) Battle Plan (typewritten), resulting from the estimate.

(3) Battle Disposition(s) (graphic), as an Annex to the Battle Plan.

(4) Approach Disposition(s) (graphic), as an Annex to the Battle Plan.

(5) The Operation Order (typewritten), covering the contemplated operations leading up to the engagement.

(6) The Cruising Disposition(s) (graphic), as an Annex to the Operation Order.

(7) Scouting Plan(s) (graphic), as an Annex to the Operation Order.

(8) Communication Plan as an Annex to the Operation Order.

Procedure for Playing

All student officers will submit Requirements 1 to 8 inclusive.

The Staff will examine the solutions, and select the one to be played. The officer whose solution has been selected will be designated as Admiral OC, Commander ORANGE Second Fleet.

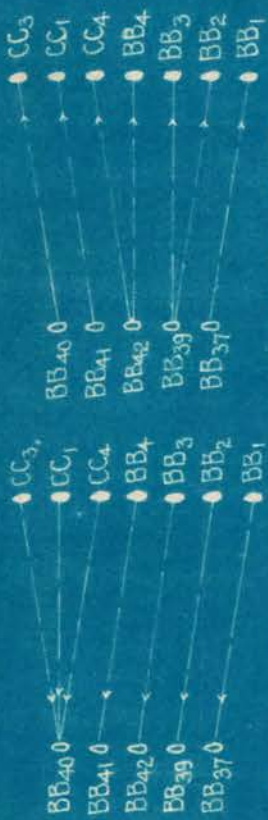
The selected Battle Plan and Operation Order, with necessary Annexes, will be copied and distributed to the ORANGE side.

The command and maneuver staff details will be published.

The playing will begin, as of 15 August 0500, as a Chart Maneuver, and will be continued as a board maneuver as soon as the two forces are sufficiently close.

Assumptions.

- Direct method.
- Main battery.
- Director lay.
- Plane spot.
- Range established.
- Steady course and speed.
- No spray, roll, pitch, sun glare, smoke, or silhouette.
- Visibility good.
- No damage as of each three minute move.
- Small change of speed.

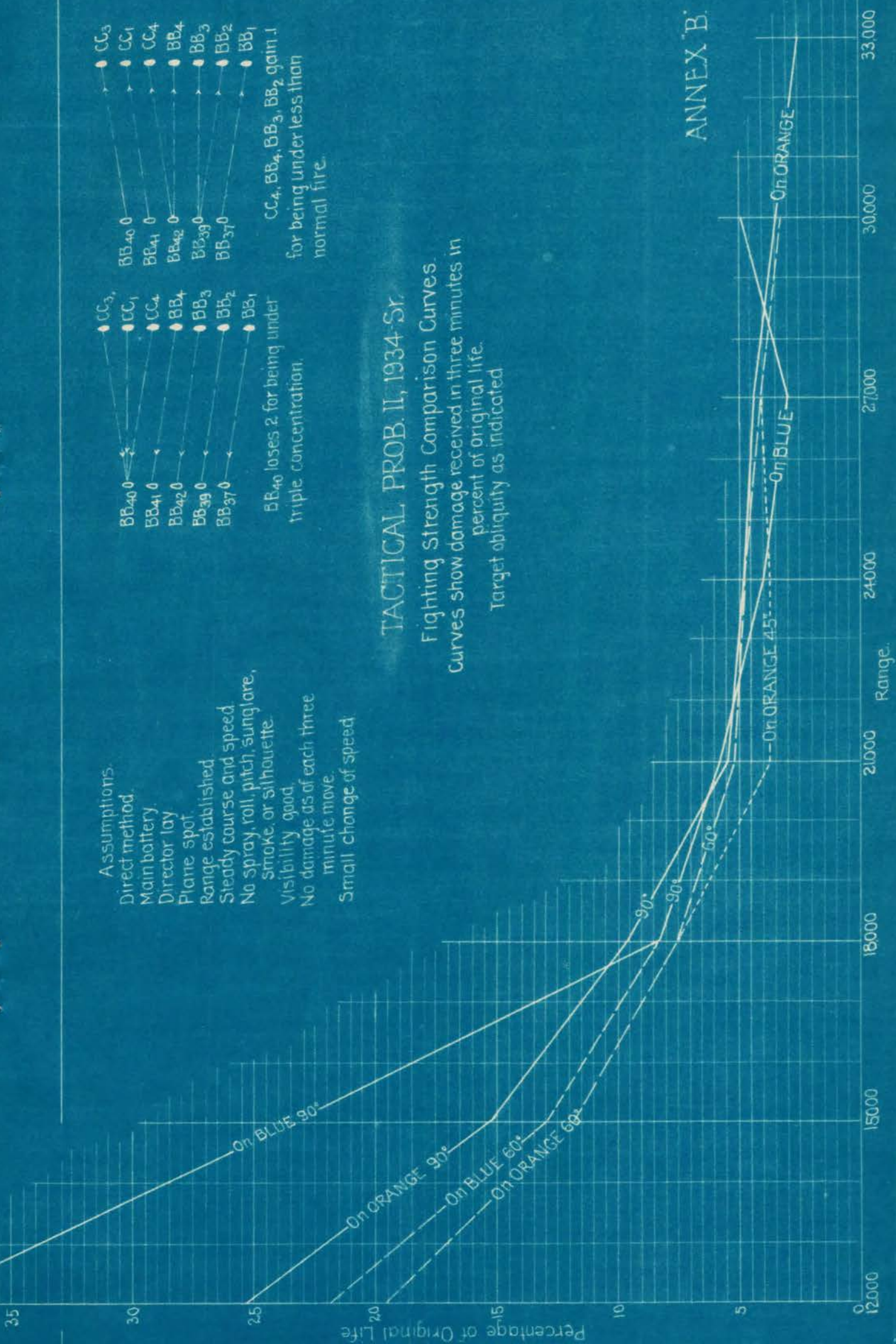


BB₄₀ loses 2 for being under triple concentration.

CC₄, BB₄, BB₃, BB₂ gain 1 for being under less than normal fire.

TACTICAL PROB. II, 1934-Sr.

Fighting Strength Comparison Curves.
Curves show damage received in three minutes in percent of original life.
Target obliquity as indicated.



ANNEX B.