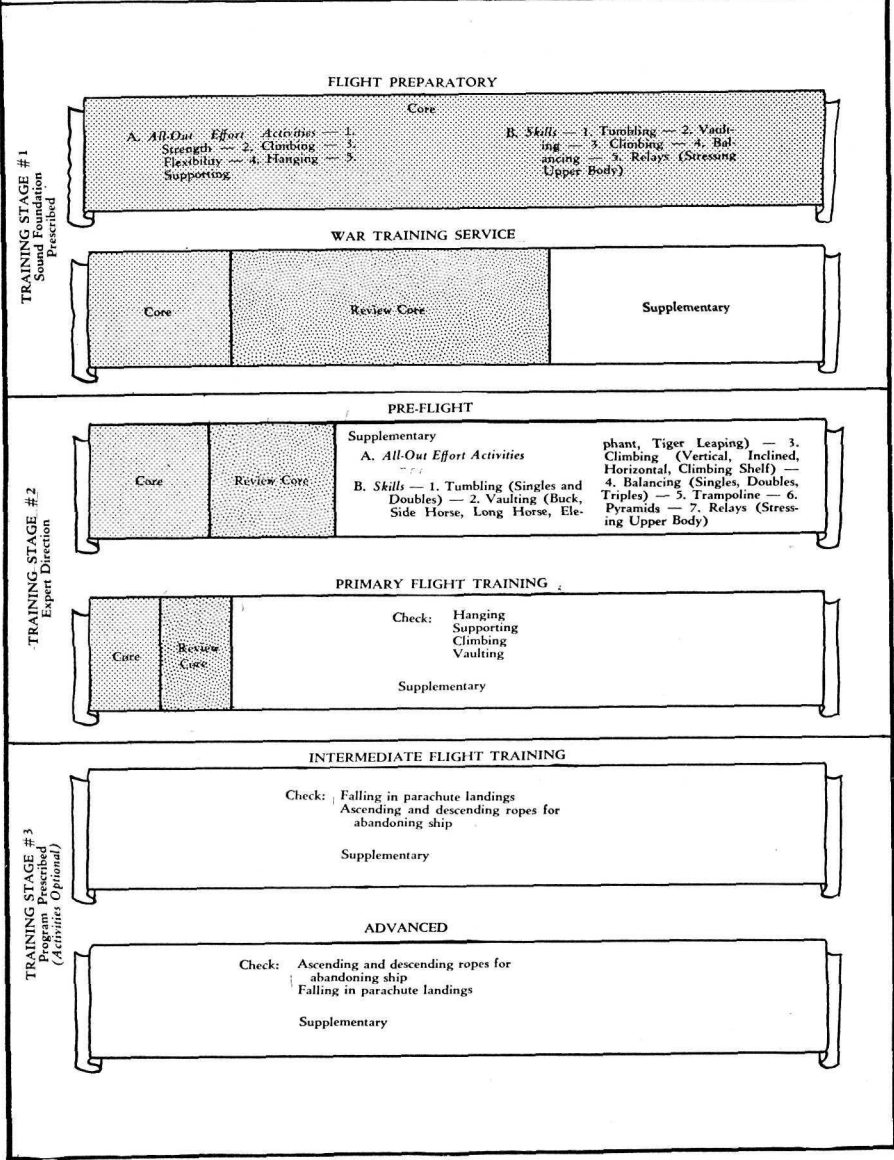


APPENDICES

The Naval Aviation Gymnastic and
Tumbling Program

THE NAVAL AVIATION GYMNASTICS AND TUMBLING PROGRAM

The program develops in the cadet *all-out effort* and *skill* through the activities which constitute the program. These activities are established in terms of: I CORE II REVIEW CORE III SUPPLEMENTARY ACTIVITIES



The Naval Aviation Gymnastics and Tumbling Program

APPENDIX I

The Gymnastics and Tumbling lessons throughout the Naval Aviation Physical Training program have been planned progressively. All phases of the program should be conducted as closely as possible to stipulated lesson plans. However, it will be necessary to deviate somewhat from the general outline because of the needs and circumstances peculiar to a particular base. The results, therefore, will depend to a large extent upon the facilities, the time allotment, the previous background of the cadets and the available leadership.

The controlled progression of work ends at the Primary Flight Bases. At the Intermediate and Operational Bases the gymnastics and tumbling staff should carefully select the stunts that will motivate interest, stimulate the cadets, and contribute toward a realization of the objectives.

GENERAL PLAN FOR GYMNASTICS AND TUMBLING IN NAVAL AVIATION CADET TRAINING

The general plan must be sufficiently flexible in order to adapt it to unpredictable variations in equipment, space, time allotment and previous training of instructors. It must be rigid enough, however, to insure the desired outcomes; namely, the teaching of required minimum core activities which are divided into two main categories:

Core All-Out Effort (Strength) Achievement

Purpose—to increase individual proficiency in upper body strength. In addition, power, balance, agility, flexibility, and endurance are developed.

Core Skills and Events

1. Tumbling
2. Climbing
3. Balancing
4. Vaulting
5. Trampoline
6. Hanging and Supporting

Purpose—to increase individual proficiency in coordinated skills.

Core, Review Core and Supplementary Activities Defined

1. Core Activities

Core activities are the activities that must be taught in Gymnastics and Tumbling in the Cadet Physical Training Program.* These activities have been carefully

* In the training program for enlisted personnel the activities are differentiated as *basic* and *additional*.

selected to insure maximum cadet physical achievement within his scope of learning and also to insure a proper foundation for the more difficult skills which will follow further on in the program. Core activities are divided into two groups:

- a. Core All-out Effort (Strength) Achievement refers to activities such as chin-ning, pushups, half levers, squat jumps, requiring strength to perform.
- b. Core Skill and Events refer to activities such as forward roll, backward roll, head balance, etc., requiring coordination to execute. They are selected from balancing, tumbling, vaulting, hanging and supporting activities.

2. *Review Core Activities*

Review core activities are offered to insure mastery of previous skills and achievements and also to serve as a check on previous accomplishment of cadets coming from preceding schools.

3. *Supplementary Activities*

In addition to Core material, that is, material the instructor is *required to teach*, is a list of Supplementary (or optional) activities, which may be taught at the discretion of the instructor. The Supplementary material list gives flexibility to the program by allowing for:

- a. Differences in cadet achievement.
- b. Differences in time length of class periods.
- c. Difference in instructor experience.
- d. Difference in gymnasium equipment.
- e. Differences in size of teaching staff.

Scope of Gymnastics in Flight Preparatory Schools

1. Program is to be built from a list of core activities and a limited list of supplementary activities.
2. The stunts are described fully in the appendix of the syllabus.
3. A detailed lesson plan based on twelve 45 minute lessons and including all prescribed core activities and some supplementary activities is provided as a recommended program. Reasonable variations are permissible only if core activities prescribed for this phase of training are taught. However, no other material is to be taught which is not included either in the core list for Flight Preparatory Schools and the supplementary list for War Training Service Schools.

Scope of Gymnastics in War Training Service Schools

1. Program is to be built from: (1) a review of core activities scheduled to be taught at the Flight Preparatory Schools and (2) a small specific list of new core activities.
2. A detailed lesson plan based on ten 45 minute periods is included as a recommended program. The lessons contain review and variations but largely are comprised of Flight Preparatory and War Training Service supplementary activities. Variations from it are permissible if all core material is included and if the supplementary material is restricted to the list established for the Flight Preparatory and War Training Service Schools.

Scope of Gymnastics in Pre-Flight Schools

1. Program is to be built from: (1) a review of core activities from Flight Preparatory and War Training Service Schools' lists; (2) a list of the new core activities for Pre-Flight Schools; (3) all supplementary activities which the director of gymnastics wishes to include. The scope of supplementary activities is determined by Pre-Flight School facilities, staff, and previous training received by the cadet. Some of the supplementary material is described in the appendix of the syllabus. The section on the "Scope and Explanation of Supplementary Activities for Primary, Intermediate and Operational Bases" (P. 415).
2. A detailed lesson plan based on 45 minute periods is provided as a suggested program. Variations are permissible and expected if new core activities and review core activities are adequately taught and if supplementary activities are well organized, well planned and safely taught.

Scope of Gymnastics in Primary Flight Training

1. Program is to be built from: (1) a check on cadet proficiency in certain listed core activities; (2) a review of core activities for sub-standard group; (3) supplementary, determined by equipment and instructional experience, selected "Scope and Explanation of Supplementary Activities for Primary, Intermediate and Operational Bases" (P. 415).
2. Four model 45 minute lessons are given for guidance and reference in presentation and organization. The problem is largely one of organization since a competent staff will administer a sound program for cadets of varying ability. Variations are permissible if sub-standard cadets are given review on core activities and if the supplementary material is based upon the "Scope and Explanation of Supplementary Activities for Primary, Intermediate and Operational Bases" (P. 415).

Scope of Gymnastics in Intermediate and Operational Training

1. Because of the apparent impracticability of a continuous series and set number of lessons, no core activities will be required but supplementary (optional) activity based on the "Scope and Explanation of Supplementary Activities" (P. 415) will be offered. The practice of reviewing core activities when groups and individuals indicate need of review is not to be eliminated.
2. No suggested lesson plans are provided since the number and length of lessons are unpredictable quantities. Variations of other lesson plans may be adopted by the instructor.

**GENERAL PLAN FOR GYMNASTICS AND TUMBLING IN OTHER
BRANCHES OF THE NAVAL AVIATION PROGRAM*****Scope of Gymnastics for Officers on Shore Stations***

1. Differences of age, condition, previous training and facilities demand a flexible program.
 2. A list of suggested material is included from which suitable activities may be selected. No lesson plans are suggested since the number and length of lessons are more or less unpredictable.
-

Scope of Gymnastics for Enlisted Men on Shore Stations

1. Program is to be built from a list of activities considered basic in all phases of aviation training, together with additional material.
2. The stunts are described fully in the syllabus appendix.
3. A detailed lesson plan based on twelve 60 minute periods includes all basic activities and some additional activities. Variations are permitted. No limit is placed on achievement.

Scope of Gymnastics for Officers and Enlisted Men Aboard Carriers

1. Program may be built from any suitable activity in the syllabus or Naval Aviation Manual.
2. Suggestions are offered for partner stunts and pyramids which require no equipment.
3. No lesson plans are offered because of different levels of ability.

Scope of Gymnastics for Officers on Foreign Stations

1. Program should be flexible depending upon the location and facilities available.
2. Suggestions are offered for construction of equipment from material on hand.

**MINIMUM GYMNASTIC EQUIPMENT FOR THE
VARIOUS STAGES OF TRAINING**

	Mats	Climb Ropes	Parallels	S. Horse	Vaulting Box	Rings	Horiz. Bars	Spring Board	Beat Boards	Trampoline	Balance Beam	Cargo Net	Parallels Low
Flight Prep	12 5×10	10			4				4		4		
W.T.S. Schools	12 5×10	10			4				4		4		
Pre-Flight	10—5×20 10—5×10	8	2	2	2	2	2	2	2	2	2	1	2
Primary	15 10×5	6	2	1	2	2	1	2	2	2	2		1
Intermed. & ea. Outlying Field	8 5×10	4	1	1		1	1	1	1	1			1
Operational	8 5×10	2	1	1	1	1	1	1	1	1			1

FLIGHT PREPARATORY SCHOOL PROGRAM

Core Activities**A. All-Out Effort Standards***

1. Strength

<i>Achievements</i>	<i>Purpose</i>	<i>Standard</i>
Chins	Biceps	5
Neck Pull-ups	Biceps	3
Dips	Triceps	4
Push-ups	Triceps	15
Extension Press-ups	Shoulder and Back	2 sec.
V Position	Abdominal	1 min.
V Roll	Abdominal	1
Leg Lifts, Sit-ups	Abdominal	20/20
Squat Jumps	Legs	30
Burpees	Legs and Back	20
Push-ups Slap Chest	Triceps	10

2. Climbing

Rope Climb	Climbing	20' rope in 15 sec.
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3. Flexibility

Trunk Extension	Flexibility	15"
Trunk Flexion		10"
Shoulder Flexibility		10"

4. Hanging

Skin the Cat	Hanging	1
Monkey Hang		1
Belly Grind		1

5. Supporting

Dips	Supporting	4
Squat Balance		Correct Form
Grasshopper Walk		1 Forward

B. Core and Supplementary Stunts

1. Core Stunts

<i>Balance</i>	Momentary hand balance and snap down
Frog head balance	Hand balance (modified or supported)
Frog hand balance	
Head balance	

* See p. 441 for requirements throughout all stages of training.

Singles Tumbling

Back roll from squat stand
Back roll from stand

Falls

Low jumps from platform
limited height 5'
(no roll)
Jump and roll
Twisting jumps
Twisting jumps and roll

Doubles Tumbling

Double roll forward
and backward (monkeyroll)

Doubles Balancing

Chest Balance on partner's back

Balance Beam

Seat Travels
Walk forward and backward
Run forward and backward
Sideward Walk
Pirouette

Vaulting

Jump to Stand
Squat Vault
Straddle Stand
Front Vault
Wolf Vault
Straddle Vault
Knee Stand Vault
Fence Vault
Thief Vault

Horizontal Climb on Pipes or Ropes

Hand follow hand
Hand over hand
Sloth Walk

Climbing Vertical Rope

Leg around secure
Leg around climb
Leg around descend
Cross leg shinny-up
Cross leg secure
Cross leg descend
Stirrup climb
Stirrup descend
Stirrup secure
Core (climb without legs)

Description of all core activities in the appendix (P. 441).

2. Supplementary Activities

If supplementary activities are desired they may be selected from the War Training Service School list on pages 383, 391. Core activities must be covered thoroughly before supplementary activities are used.

LESSON PLANS FOR FLIGHT PREPARATORY SCHOOLS

The Flight Preparatory School Gymnastics and Tumbling Instructor is responsible for the foundation upon which the entire cadet gymnastic training is to be built. The inherent benefits derived from gymnastics will depend, in a large measure, upon the quality of the training given at these schools.

The following lesson plans are suggested as a guide and can be altered to suit immediate needs. However, the following principles must be observed.

1. Muster procedure should not infringe on the gymnastic and tumbling time.
2. Warm up—About three minutes from each lesson should be devoted to warm-up or conditioning exercises by means of special exercises or review of the fundamentals previously covered. Cadets may execute movements at top speed upon command:

1. Stationary run!
2. On your belly!—Stand up!
3. Touch head to deck!—Stand up!
4. Fall forward—Squat!—Turn right! Turn left! Stand up!
5. Forward roll!—Backward roll!

Repeat series until group is thoroughly warmed up.

3. All material must be selected from core material outlined in the syllabus appendix, and supplementary material should be used only when the core material has been covered satisfactorily. Refer to War Training Service School supplementary list on pages 383, 391.
4. An effort should be made to include more than one gymnastic activity in each lesson. Emphasis should be placed on rope climbing.
5. Material must be arranged progressively from the simple to complex.
6. Competition is to be included in each lesson. It may cover:
 - A. Relays
 - (1) Rope Climbing
 - (2) Balance Beam
 - (3) Mimetic Locomotion
 - (4) Vaulting
 - B. All out effort Activity Contests.
 - C. Platoon achievement on the basis of the number of stunts checked off by platoons.
 - D. Stunts Contests
 - E. Gymnastic Meets
 - F. Obstacle Races Using Gymnasium Equipment or Cadets.
7. Time Allotment of Lessons—The time allotment for the various activities of the lesson plan has been set up in terms of (1) Specific, (2) Running Total and (3) Percentage.
 - (1) *Specific*—The actual number of minutes devoted to each activity based upon a forty-five (45) minute period.
 - (2) *Running Total*—The accumulative number of minutes for each activity.
 - (3) *Percentage*—The approximate percentage of time to be devoted to the various activities in case the period is longer or shorter than the regular 45 minute period.

Grading

Grading is done objectively. An efficient objective system of grading has many advantages and helps to insure the success of the program.

1. The cadet is constantly challenged to improve himself.
2. An incentive is provided for every cadet to accomplish more stunts.
3. Each cadet determines own grade.
4. A complete picture of the cadet's ability is presented.
5. Weekly grade is easily determined.
6. Improvement of the cadet may be noted. (Time saver)
7. A helpful guide for lesson planning.
8. It serves as a "check record" for cadets.
9. Guide for class organization and procedure.

10. Competition between platoons possible.
11. Platoon officers can assist as "checkers" of stunts. They become additional coaches.

Plan of Organization in the Administration of Grading

A. Controlled

Grading may be administered by checking off learned stunts on a composite grading sheet (see page 371) by the instructor and platoon cadet officers as assistants or when classes are small, by the instructor alone. This may be done by various methods.

1. A day set aside solely for grading. (See Flight Preparatory lesson plans)
2. A small part of each lesson.
3. Continually checking off stunts as they are learned during the class period.

B. Alternate

If classes are large and instructor personnel is limited, complete grades of all cadets in a minimum time may be obtained. The following is suggested:

Post the composite grade sheet on the bulletin board.

The individual cadet masters a skill to the satisfaction of the instructor who sends the cadet to the composite skill list and checks that skill off against his name. This procedure is a continuous one beginning with the first lesson and including the last. At the end of the Gymnastics and Tumbling Course each cadet can see what he has accomplished and his corresponding grade.

The above setup will undoubtedly accelerate competition among the cadets individually within the platoon.

GRADE SCALE

This grading scale is not standard. The grades represented herein are approximate and are subject to change according to the needs of each situation.

Activities Passed	Gr.	Activities Passed	Gr.	Activities Passed	Gr.	Activities Passed	Gr.
5	2.1	10	2.6	15-16	3.1	25-26	3.6
6	2.2	11	2.7	17-18	3.2	27-28	3.7
7	2.3	12	2.8	19-20	3.3	29	3.8
8	2.4	13	2.9	21-22	3.4	30	3.9
9	2.5	14	3.0	23-24	3.5	National Championship Calibre	4.0

APPENDIX
GRADE SHEET

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GRADE SHEET		Extension Press (3 Seconds)	Half Lever (3 Seconds)	Chins (5)	Dips (4)	V Position (1 Minute)	Leg Lifts and Sit-ups (20 Each)	Squat Jumps (30)	Squat Balance (Touch knees once) or Squat Balance (30)	Push-ups (Slap chest 10 times)	Burpees (20)	Push-ups; body parallel to deck (20)	"V" Roll (1)	Neck Pull-ups (3)	Sit-ups (arch backs) (15)	Skip over leg forward	Rope Climb (20 Foot rope—15 secs.)	Three Forward Rolls into frog-head balance	Straddle Vault (4 Ft.)	Vaulting Routine (Side Horse)	Forward and Backward Roll See-Saw	Straight Head Balance (10 secs.)	Balance Beam—6 Pirouette Turns in succession	Skin the Cat (3)	Belly Grind (1)	Modified Hand Balance—head supported on rolled mat	New Records (Equivalent to two stunts)	Shoulder Flexibility (10 inches)	Trunk Extension (15 inches)	Trunk Flexion (10 inches)	First Week	Second Week
CO. _____	Plat. _____																															
Platoon Leader _____																																
First Wk. Tot. _____																																
Second Wk. Tot. _____																																
"Be Sure Men Are Spotted Correctly."																																
1st Week																																
CADET																																
1.																																
2.																																
3.																																
4.																																
5.																																
6.																																

ACTIVITIES—FIRST AND SECOND WEEK

1. Extension press-up (2 sec.)	17. Rope climb (20 ft. rope from stand using legs to top 15 sec.)
2. Half lever (3 sec.)	18. Three forward rolls into a frog-head balance
3. Chins (5)	19. Straddle vault (height 4 ft.)
4. Dips (4)	*20. Vaulting routine on side horse
5. V-Position (one minute)	*21. Forward and backward roll see-saw
6. Leg lifts and sit-ups (20/20)	22. Straight head balance (10 sec.)
7. Squat jumps (30)	23. Balance beam—six pirouette turns in succession
8. Squat balance touch knees (1)	24. Skin the cat (3)
9. Push-ups, slap chest (10)	25. Belly grind (1)
10. Burpees (20)	26. Modified hand balance—head supported on rolled mat
11. Push-ups: body parallel to deck and not touching, legs supported 12 to 16 inches off the deck (20)	27. New record equivalent to two new stunts
*12. V-Roll (1)	*28. Shoulder flexibility (10 inches)
13. Skip over leg (forwd.)	*29. Trunk extension (flexibility) 15 inches
*14. Neck pull-ups (3)	*30. Trunk flexion (flexibility) 10 inches
*15. Sit-ups (15)	
16. Squat balance (30 sec.)	

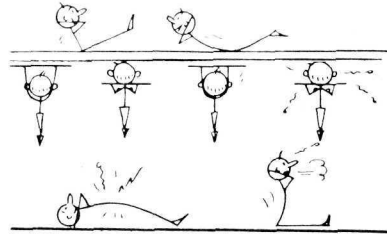
SKILLS AND EVENTS IN FLIGHT PREPARATORY SCHOOLS*
 ALL-OUT EFFORT (STRENGTH WITH FLEXIBILITY) ACTIVITIES**

Strength

V-roll

Neck pull-ups

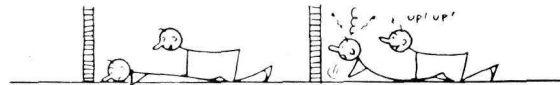
Sit-ups—Back arched

**Flexibility**

Shoulder flexibility—From a prone position on the deck, legs together and arms extended over head grasping wand with over grip, shoulder width—Keep chin on chest—Partner presses cadets hips to the deck and secures them there throughout the exercise—Cadet lying on the deck raises both arms from the shoulders as high as possible—Measure distance from deck to raised wand.



Trunk extension (Flexibility)—Starting position—Prone position as above—Partner presses down on hips of prone cadet and secures them to the deck throughout exercise—Cadet on deck raises trunk from the hips as high as possible—Measure distance from deck to chin



Trunk flexion (Flexibility)—Standing position—Sitting on the deck, legs apart and straight—Bend the trunk forward between the legs and as low as possible under own power, do not bounce trunk downward—Measure distance from deck to forehead.



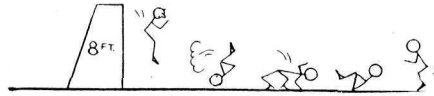
Suggestions for administration of Flexibility tests; Place markings on wall either with adhesive tape or paint. These markings should be graduation of one inch starting from the deck and extending at least 20 inches high. The 10 inch and 15 inch line should be accentuated by coloring it or making it a thicker line than the others.

* Refer to p. 442.

** For other All-Out Effort Activities see pp. 308, 323, 391, 399, 441, 460.

Agility

Forward and backward roll, see-saw
 —From a crouch sitting position with hands in position for a forward roll, execute a forward roll to a crouch position with hands on the deck—Immediately execute a backward roll to a crouch position with hands on the deck ready for another forward roll.—This constitutes one see-saw roll.—The requirement of 5 see-saw rolls must be done without stopping after each roll



Vaulting routine—Side horse or vaulting box—Stand, facing the horse with the left hand on the left pommel and the right hand on the horse (if vaulting boxes are used, both hands will be placed on the box)—Vault through the hands using a squat vault—After hitting the deck with the feet, execute a half turn to the left, keeping the left hand on the pommel, grasp the right pommel, vault through with another squat vault—Again the feet hit the deck and a half turn to the right is made, keeping the right hand on the pommel—The left hand is placed on the horse and another squat vault is executed with a turn to the right after the feet hit the deck, remembering again to keep the right hand in contact with the pommel—Come to a position facing the horse with both hands on the pommels—From this position on the deck execute a straddle vault over the horse.



LESSON I

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. <i>Muster</i>			
II. <i>Introduction to Gymnastics and Tumbling</i>	15	15	34
A. Purpose of Gymnastics and Tumbling in the Training Program of Naval Aviators			
B. Scope of Gymnastics and Tumbling in the Training Program of Naval Aviators (Flight Preparatory through Primary)			
C. Class organization and regulations peculiar to each particular situation.			
D. Spotting and assisting			
III. <i>Warm-up and All Out Effort Activity</i>	10	25	22
A. Push-ups, body parallel to deck and not touching, legs supported 12 to 16 inches off deck			
B. Leg lifts and sit-ups			
C. Shoulder flexibility exercises			
IV. <i>Gymnastics and Tumbling</i>	20	45	56
A. <i>Tumbling</i> (run relays with these stunts)			
1. Mimetic locomotion stunts			
2. Twisting jumps			
a. Stance—hands on hips, feet together. Hop length of mat			
b. Alter above, traveling diagonally across mat; right, left, right			
c. Traveling stride jumps			
d. Series of jumps over kneeling men. Divide squad into teams and run relay			
e. Jumps with $\frac{1}{4}$, $\frac{1}{2}$, and full turns			
f. Crab walk, forward, sideward and backward			
B. <i>Climbing—vertical ropes</i>			
1. Leg around secure			
2. Leg around climb			
3. Leg around descent			

LESSON II

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. Burpees			
B. Sit-ups			
C. Chins			
D. Trunk extension (flexibility) exercise			

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
III. <i>Gymnastics and Tumbling</i>	35	45	78
A. <i>Tumbling and Balance</i>			
1. Forward roll			
a. Crouch to stand			
b. Stand to stand			
2. Backward roll			
a. Crouch to stand			
b. Stand to stand			
3. Rolls in series			
a. Forward			
b. Backward			
4. Balance			
a. Frog head-balance			
b. Frog hand-balance			
B. <i>Vaulting</i>			
1. Jump to stand—dismount			
2. Squat vault			
C. <i>Climbing—vertical ropes</i>			
1. Review climbing of Lesson I			
2. New material			
a. Cross leg secure			
b. Cross leg shinny up climb			
c. Cross leg shinny descent			

LESSON III

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. Extension press-up			
B. V-Position			
C. Trunk flexion and ham string flexibility exercises			
III. <i>Gymnastic and Tumbling</i>	25	35	56
A. <i>Tumbling and Balance</i>			
1. Review			
a. Series of Forward rolls			
b. Series of Backward rolls			
2. New Material			
a. Forward roll cross legs into backward roll			
b. Shoulder roll left and right			
(1) Crouch to stand			
(2) Stand to stand			

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
3. Balance			
a. For review, combine balance with tumbling			
(1) Example—series of forward rolls into frog head-balance—same frog hand-balance or from frog head-balance roll forward			
B. <i>Climbing—vertical ropes</i>			
1. Review and drill on first two lessons			
2. Combinations of first two lessons			
a. Example—climb to top with cross leg shinny up, secure at top with leg around secure—descend using leg around			
IV. <i>Competition</i>	10	45	22
1. Seal walk—Relay			
2. Dead man's carry—Relay			

LESSON IV

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. Push-ups Slap Chest			
B. Squat jumps			
C. Skip over leg forward			
D. Shoulder flexibility exercise			
III. <i>Gymnastics and Tumbling</i>	35	45	78
A. <i>Balance</i>			
1. Review			
2. Plain or straight head-balance			
B. <i>Balance Beams</i>			
1. Explain principles of balance			
2. Seat travels			
C. <i>Vaulting</i>			
1. Review previous lesson			
2. Knee stand vault			
3. Knee stand vault with turns			
D. <i>Climbing—vertical ropes</i>			
1. Review			
2. New Material			
a. Stirrup secure			
b. Stirrup climb			
c. Stirrup descent			

LESSON V

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. Dips			
B. Neck pull-ups			
C. Trunk extension flexibility exercise			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. <i>Tumbling and Balance</i>			
1. Review			
a. Series of rolls—forward, backward, shoulder			
b. Combine in one series—forward, right and left shoulder roll			
Cross legs into a backward roll			
2. New material			
a. Falls			
3. Balance			
a. Review all previous balance skills and combine with tumbling			
B. <i>Climbing—vertical ropes</i>			
1. Review and drill in all previous climbing skills			
IV. <i>Competition</i>	10	45	22
A. Wheelbarrow walk relay			
B. Boat relay			

LESSON VI

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. Practice on any or all the All Out Effort Activities covered thus far			
B. Trunk flexion and ham string flexion exercises			
III. <i>Gymnastics and Tumbling</i>	30	45	78
A. Testing in skills			
B. Checking off All Out Effort Achievements			

LESSON VII

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. V-Roll			
B. Squat balance, touch knees			
C. Half lever			
D. Shoulder flexibility exercises			
III. <i>Gymnastics and Tumbling</i>	35	35	78
A. <i>Balance Beams</i>			
1. Standing Travels			
a. Walk across forward			
b. Walk across backward			
c. Side stepping across			
d. Hopping sideward			
e. Hopping forward on one foot			
f. Running across			
B. <i>Vaulting</i>			
1. Review			
2. Front vault—straddle stand, straddle vault			
C. <i>Climbing</i> —horizontal ropes, pipes or horizontal ladder			
1. Hand follow hand hang travel			
2. Hand over hand hang travel			
3. Sloth walking hang			
4. Hand and knees hang			
5. Elbow and knee hang			
6. Chinning			
7. Leg and hand swing up to side straddle seat			

LESSON VIII

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. Push-up body parallel to deck but not touching, legs supported 12 to 16 inches from deck			
B. Leg lifts—sit-ups			
C. Trunk extension (flexibility) exercise			

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. <i>Tumbling and Balance</i>			
1. Review material of other lessons			
2. New material			
a. Run and roll			
b. Jump and roll			
c. Jump twist and roll			
3. Balance			
a. Review			
b. Modified hand balance—partner assisted. Momentary hand balance and snap down			
B. <i>Climbing—vertical ropes</i>			
1. Review and drill			
IV. <i>Competition</i>	10	45	22
1. Crab walk relay (forward)			
2. Crab walk relay (backward)			

LESSON IX

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. Chins			
B. Squat jumps			
C. V-Roll			
D. Trunk flexion and ham string flexibility exercises			
III. <i>Gymnastics and Tumbling</i>	35	45	78
A. <i>Tumbling and Balance</i>			
1. Review			
2. New Material			
a. Double forward roll			
b. Double backward roll			
3. Balance—partner			
a. Chest balance			
B. <i>Vaulting</i>			
1. Review			
2. Fencers' vault, and wolf stand and wolf vault			
C. <i>Climbing—vertical or horizontal</i>			
1. Review			
2. New Material			
a. Climbing without legs			

LESSON X

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. Sit-ups			
B. Neck pull-ups			
C. Shoulder flexibility exercise			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. <i>Balance Beams</i>			
1. Review			
2. New Material			
a. Travels in crouch position			
(1) Cat walk			
(2) Duck walk forward			
(3) Duck walk sideward			
b. Travels with turns in stand			
(1) Pirouettes			
B. <i>Climbing—vertical ropes</i>			
1. Review			
c. Climbing without legs			
IV. <i>Competition</i>			
A. Rope climbing			
B. Tandem walk relay			

LESSON XI

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. Burpees			
B. Sit-ups			
C. Extension press-up			
D. Trunk flexion and ham string flexibility exercise			
III. <i>Gymnastics and Tumbling</i>	35	45	78
A. <i>Review all tumbling and balance</i>			
B. <i>Vaulting</i>			
1. Review all vaults			
C. <i>Climbing</i>			
1. Review all climbing and drill			

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activity</i>	10	10	22
A. Review any of the all out effort activities			
III. <i>Gymnastics and Tumbling</i>	35	45	78
A. Testing in skills			
B. Checking off All Out Effort Achievements			

Competitive Relays*

Competitive Relays listed below are being used during the sports program at one of the Pre-Flight Schools. They are especially good for developing strength. The possible variations and combinations are almost unlimited. It is suggested that the instructor try these relays, re-using those which prove most challenging and interesting.

- | | | |
|-------------------------|----------------------|----------------------|
| 1. Chair obstacle relay | 10. Mat relay | 18. Three-man wheel- |
| 2. Chariot race | 11. Medicine ball (9 | barrow |
| 3. Crab crawl | lbs.) | 19. Back carry |
| 4. Double rescue | 12. Monkey walk | 20. Two-men carry |
| 5. Elephant walk | 13. Skin the cat | 21. Pilot hang |
| 6. Horse and rider | 14. Stroke the boat | 22. Dead man carry |
| 7. Horse walk | 15. Tandem walk | 23. Bar walk |
| 8. Human chair | 16. Tripod | 24. Pass and duck |
| 9. Inverted hang | 17. Tug of war | |

* Suitable relays may also be selected from Chapter XIV.

WAR TRAINING SERVICE SCHOOLS PROGRAM

Core Activities

A. All-out Effort Standards*

1. Strength

<i>Achievements</i>	<i>Purpose</i>	<i>Standard</i>
	Muscle Group	
Chins	Biceps	7
Neck Pull Ups	Biceps	5
Dips	Triceps	6
Push Ups	Shoulders and Back	25
Extension Press Up	Abdominal	3 sec.
V Position	Abdominal	1 min. 30 sec.
V Roll	Abdominal	3
Leg Lifts Sit Ups	Abdominal	25/25
Half Lever	Abdominal	4 sec.
Squat Jumps	Legs	40
Burpees	Legs and Back	25
Push-Up-Slap Chest	Triceps	15
2. Climbing		
Rope Climb (20')	Biceps	12 sec.
3. Flexibility		
Trunk Extension	Flexibility	15"
Trunk Flexion		10"
Shoulder Flexibility		10"
4. Agility		
Skip Over Leg	Agility	Forward and backward
5. Hanging		
Skin the Cat	Hanging	1
Monkey Hang		1
Belly Grind		2
6. Supporting		
Dips	Supporting	6
Squat Balance		Touch knees twice
Grasshopper Walk		Forward
Grasshopper Walk		Forward and 10 dips

* See p. 441 to show requirements throughout all stages of training.

REVIEW CORE AND SUPPLEMENTARY SKILLS

B. Stunts and Events

1. *Review Core (will teach)**Balance*

Frog Head
 Frog Hand
 Head Balance
 Head balance, arms folded
 Hand balance (modified or supported)
 Momentary hand balance snap down to stand

Doubles Tumbling

Double roll forward and backward (Monkeyroll)
 Balancing
 Chest balance on partner's back

Falls

Low jumps from platform limited height 5' (no roll)

Singles Tumbling

Forward roll
 Forward roll from stand
 Running forward roll
 Back roll from squat stand
 Back roll from stand with and without stand
 Jump and roll
 Twisting jumps
 Twisting jumps and roll
 Shoulder roll
 Mimetic locomotion

Balance Beam

Seat Travels
 Walk forward and backward
 Run forward and backward
 Sideward walk
 Pirouettes

2. *Supplementary**Balancing*

Arms folded (head balance)
 Press from squat to head balance
 Head in hands (elbow balance)

Climbing Vertical Rope

Leg around secure
 Leg around climb
 Leg around descent
 Cross leg shinny-up
 Cross leg secure
 Cross leg descent
 Stirrup climb
 Stirrup descent
 Stirrup secure
 Climbing without legs

Horizontal Climb on Pipes or Ropes

Hand follow hand
 Hand over hand
 Sloth walk
 Hand and knee hang
 Elbow and knee hang
 Chinning
 Leg and hand swing up to side straddle seat

Vaulting

Jump to stand
 Squat vault
 Straddle stand
 Front vault
 Wolf vault
 Straddle vault
 Knee stand vault
 Fence vault
 Thief vault

Forearm balance
 Forward roll to head
 Forward roll to head balance

Tumbling

Forward roll from frog hand balance
 Forward roll variations
 Back roll variations
 Lateral or side roll
 Roll combinations
 Fish flop
 Triple lateral rolls

Doubles

Limit to following:
 Swan balance
 Foot to hand
 Thigh mounts facing in and out
 Pyramids from above

Rope Climbing

Oblique Rope Climb
 Horizontal rope
 Inverted hang

Horizontal Ropes

Leg and hand swing up to front lying
 Backward circle up

Balance Beam

Balance Calisthenics
 Passing on beam
 Jump from beam to beam

Vaulting

Swan dive
 Vaulting routine

GRADE SCALE

Grading should be objective. A grade scale should be established. The grade scale below is not standard. The grades represented are approximate and are subject to change according to the needs of each situation. A sample grade sheet is shown on page 371, 403.*

Activities Passed	Gr.	Activities Passed	Gr.	Activities Passed	Gr.	Activities Passed	Gr.
7	2.1	12	2.6	17-18	3.1	27	3.6
8	2.2	13	2.7	19-20	3.2	28	3.7
9	2.3	14	2.8	21-22	3.3	29	3.8
10	2.4	15	2.9	23-24	3.4	30	3.9
11	2.5	16	3.0	25-26	3.5	Nat. Champ. Calibre	4.0

ACTIVITIES—FIRST AND SECOND WEEK

1. Extension press up (3 sec.)	17. Rope climb (20 ft. rope from stand using legs to top 12 sec.)
2. Half lever (4 sec.)	18. Three forward rolls into a frog-head balance
3. Chins (7)	19. Straddle vault (height 4 ft.)
4. Dips (6)	**20. Vaulting routine on side horse
5. V-Position (one min. and 30 sec.)	**21. Forward and backward roll see-saw
6. Leg lifts and sit-ups (25/25)	22. Straight head balance (12 sec.)
7. Squat jumps (40)	23. Balance beam—six pirouette turns in succession
8. Squat balance touch knees	24. Skin the cat (4)
9. Push-ups, slap chest (15)	25. Hip pull over belly grind (3)
10. Burpees (25)	26. Modified handstand—head supported on rolled mat
11. Push-ups: body parallel to deck and not touching, legs supported 12 to 16 inches off the deck (25)	27. New record equivalent to two new stunts
**12. V-Roll (3)	**28. Shoulder flexibility (10 in.)
13. Skip over leg (forward and backward)	**29. Trunk extension flexibility (15 in.)
**14. Neck pull-ups (5)	**30. Trunk flexion flexibility (10 in.)
**15. Sit-ups arched back (20)	
16. Squat balance (30 sec.)	

* Refer to p. 371, 403.

** See pp. 372 and 441 for description of events.

LESSON PLANS FOR WAR SERVICE TRAINING SCHOOLS

The lesson plans are mainly a review of core activities prescribed for Flight Preparatory.

The following lesson plan is suggested as a guide but may be adapted to different situations.

LESSON I

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activities</i>	10	10	22
A. Push-ups			
B. Leg lifts and sit-ups			
C. Shoulder flexibility exercises			
III. <i>Gymnastics and Tumbling</i>	25	35	34
A. Tumbling and balance (review)			
1. Forward roll			
a. Crouch to stand			
b. Stand to stand			
2. Backward roll			
a. Crouch to stand			
b. Stand to stand			
3. Rolls in series (3 rolls)			
a. Forward			
b. Backward			
4. Balance			
a. Frog head balance			
b. Frog hand balance			
B. Vaulting (review)			
1. Jump to stand—dismount			
2. Squat vault			
C. Climbing—vertical ropes (review)			
1. Cross leg secure			
2. Cross leg shinny up climb			
3. Cross leg shinny descend			
IV. <i>Competition</i>	10	45	22
A. Human chain relay			
B. Duck walk			

LESSON II

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activities</i>	10	11	22
A. Burpees			
B. Sit-ups			
C. Chins			
D. Trunk extension (flexibility) exercises			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. Tumbling and balance			
1. Series of forward rolls (review)			
2. Series of backward rolls (review)			
3. Roll forward from Frog hand balance			
4. Plain head balance (review)			
B. Climbing—vertical ropes			
1. Climb to top with cross shinny up, secure at top with leg around, secure descend using legs			
IV. <i>Competition</i>	10	45	22
A. Seal Walk relay			
B. Duck Walk relay			

LESSON III

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activities</i>	10	10	22
A. Extension Press-ups			
B. V-Position			
C. Lower back flexibility and ham string flexibility exercise			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. Tumbling and balance			
1. Forward roll to head balance (review)			
2. Backward roll variations			
3. Head balance, arms folded			
4. Lateral or side roll			
B. Climbing			
1. Review previous lesson			
a. Stirrup secure			
b. Stirrup climb			
c. Stirrup descend			
IV. <i>Competition</i>	10	45	22
A. Seal Walk relay			
B. Crab Walk relay			

LESSON IV

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activities</i>	10	10	22
A. Push-ups slap chest			
B. Squat jumps			
C. Skip over leg forward and backward			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. Tumbling and balance			
1. Head balance with head in hands (elbow balance)			
2. Hand balance (modified or supported)			
3. Lateral or side roll (review)			
B. Balance beam			
1. Seat travels (review)			
2. Walk forward and backward (review)			
C. Vaulting			
1. Knee stand vault (review)			
2. Squat vault (review)			
D. Climbing vertical ropes			
1. Review and drill all previous climbing skills			
E. Horizontal ropes			
1. Leg and hand swing up to side straddle seat (review)			
2. Chinning (review)			
IV. <i>Competition</i>	10	45	22
A. Rope climbing			
B. Crab walk relay			

LESSON V

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activities</i>	10	10	22
A. Dips			
B. Neck pull-ups			
C. Trunk extension flexibility exercises			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. Tumbling and balance			
1. Thigh mounts facing in and out			
2. Fish flops			
3. Press from frog to plain head balance			

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
B. Balance beam			
1. Run forward and backward (review)			
2. Sidewalk walk			
C. Vaulting			
1. Squat vaults with turns			
2. Low front vault, right and left			
D. Climbing—vertical			
1. Review and drill all previous climbing skills			
E. Horizontal ropes			
1. Leg and hand swing up to side straddle seat (review)			
2. Leg and hand swing up to front lying			
IV. <i>Competition</i>	10	48	22
A. Rope climbing			
B. Monkey walk relay			

LESSON VI

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activities</i>	10	10	22
A. Practice all previous work covered so far			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. Tumbling and balance			
1. Double roll forward (review)			
2. Chest balance on partner's back (review)			
3. Forearm balances			
B. Balance beam			
1. Sideward walks			
2. Passing on beam			
3. Jump from beam to beam			
C. Vaulting			
1. Straddle vault (review)			
2. Fence vault (review)			
3. Swan dive			
D. Climbing—vertical			
1. Review and drill all previous climbing skills			
E. Horizontal ropes			
1. Leg and hand swing to front line			
IV. <i>Competition</i>	10	45	22
A. Rope climbing			
B. Bear walk relay			

LESSON VII

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activities</i>	10	10	22
A. V roll			
B. Squat balance touch knees			
C. Half lever			
D. Shoulder flexibility exercises			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. Tumbling and balance			
1. Double roll forward and backward (review)			
2. Swan balance (review)			
3. Forearm balance (review)			
B. Balance beam			
1. Sideward walk (review)			
2. Passing on beam (review)			
3. Balance calisthenics			
C. Vaulting			
1. Straddle vault (review)			
2. Wolf vault (review)			
3. Series of squat vaults			
D. Climbing—vertical ropes			
1. Review and drill all previous climbing skills			
E. Horizontal ropes			
1. Leg and hand swing up to front lying			
2. Back circle up			
IV. <i>Competition</i>	10	45	22
A. Rope climbing			
B. Wheelbarrow relay			

LESSON VIII

I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activities</i>	10	10	22
A. Push-ups—legs supported 12 to 16 inches from deck			
B. Leg lifts—sit-ups			
C. Trunk extension flexibility exercises			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. Tumbling and balance			
1. Double rolls forward and backward			
2. Foot to hand balance			
3. Forearm balance			
4. Pyramids			

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
B. Balance beam			
1. Balance calisthenics			
2. Jump from beam to beam			
3. Passing on beam			
C. Vaulting			
1. High front vault			
2. Series of squat vaults			
3. Thief vault			
D. Climbing vertical ropes			
1. Review and drill all previous climbing skills			
E. Horizontal			
1. Leg and hand swing up to front lying			
2. Back circle up			
IV. <i>Competition</i>	10	45	22
A. Rope climbing			
B. Straddle vault for height			
LESSON IX			
I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activities</i>	10	10	22
A. Climb			
B. Squat jumps			
C. V-Roll			
D. Trunk flexion—hamstring flexibility exercises			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. Tumbling and balance			
1. Forearm balance			
2. Foot to hand balance			
3. Pyramids			
B. Balance beam			
1. Balance calisthenics			
2. Jump from beam to beam			
3. Pirouette			
C. Vaulting			
1. Straddle vault			
2. Swan dive catch			
3. Thief vault			
D. Climbing			
1. Review and drill all previous climbing skills			
IV. <i>Competition</i>	10	45	22
A. Rope climbing			
B. Head wrestling on balance beam			

LESSON X

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. <i>Muster</i>			
II. <i>Warm-up and All Out Effort Activities</i>	10	10	22
A. Sit-ups			
B. Neck pull-ups			
C. Shoulder flexibility exercises			
III. <i>Gymnastics and Tumbling</i>	25	35	56
A. Tumbling and balance			
1. Review all previous skills			
B. Balance beam			
1. Jump from beam to beam			
2. Balance calisthenics			
3. Pirouette			
C. Vaulting			
1. Series of squat vaults			
2. Thief vault			
3. Swan dive catch			
D. Climbing			
1. Review and drill all previous climbing skills			
IV. <i>Competition</i>	10	45	22
A. Rope climbing			
B. Head wrestling on balance beams			

Competitive Relays*

SUPPLEMENTARY ACTIVITIES FOR WAR TRAINING
SERVICE SCHOOLS

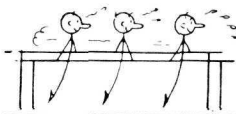
ALL OUT EFFORT (STRENGTH WITH FLEXIBILITY) ACTIVITIES

Preparatory and strength activities should be first introduced on the parallel bars and high bar. If these pieces of apparatus are available the following activities may be used.

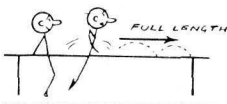
* See Chapter XIV.

Parallel Bars*

Support—Hand-over-hand walk forward—Keep chest out and head up



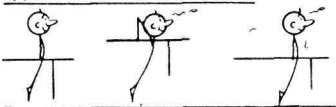
Support—Hop forward with the hands moved simultaneously



Support—Hand-over-hand forward and the legs flexed simultaneously—Ride a bicycle with legs



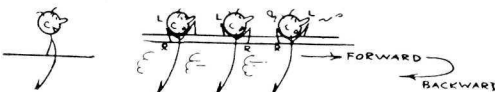
Dips—Flex arms so chin is even with bars—Arch back



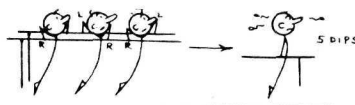
Swinging dips



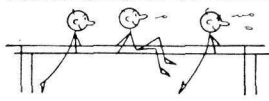
Grasshopper walk—(Bent arm position)



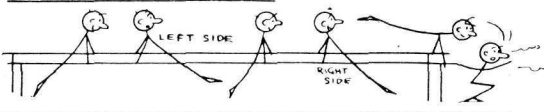
Grasshopper walk and five dips



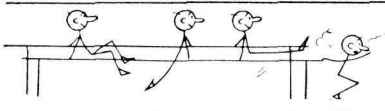
Straddle-seat—Series of straddle seats



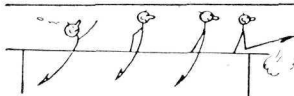
Single straddle-seat to center of bar and front dismount



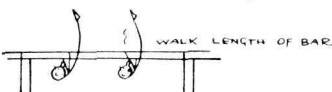
Single straddle-seat to center of bar and rear dismount



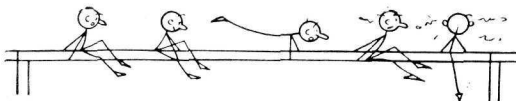
Jump to cross-support in center of bars. Lift legs to half lever position



Hang walk



Swing to side seat on left bar—Swing to side seat on right bar

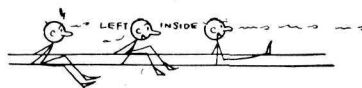


* See Chapter VIII, p. 110. Also pp. 59, 61, 63, 68, 69, 274, 300, 316, 319, 332.

Skin the cat—Bring the toes as close to the deck as possible

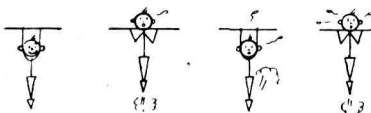


Inside cross-seat in front of left hand—Inside cross-seat in front of right hand—Dismount over right bar

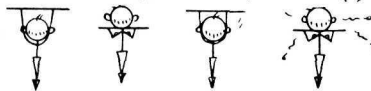


*High Bar**

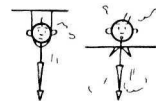
Chins—(Ordinary)



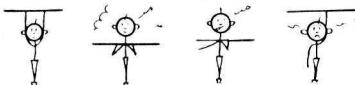
Chins—"Wide grasp—Pull up to back of neck"



Chins—Ordinary grasp—Pull up to chest



Chin (When in full chin position release one arm and hold body up with one arm)



Chin (Grasp wrist of chinning arm)



Chin (Grasp bicep of chinning arm)



Skin the cat—From hang bring legs up through the arms and then back.



Belly grind—From hang pull legs over top of bar and then body.



Monkey hang—Do a skin the cat—Then release one arm and swing a complete turn on one arm and then regrasp.



Combinations—Do a skin the cat, then a monkey hang, then a belly grind, then a monkey hang, etc.



* See Chapter VIII, p. 97. Also pp. 59, 66, 69, 271, 299, 315, 319, 329, 457.

PRE-FLIGHT SCHOOL PROGRAM

Core Activities

A. All-out Effort Standards*

1. Strength

<i>Achievements</i>	<i>Purpose</i>	<i>Standard</i>
	Muscle Group	
Chins	Biceps	10
Neck Pull-Ups	Triceps	8
Dips	Triceps	12
Push-ups	Shoulders and Back	40
Extension Press-Up	Shoulders and Back	5 sec.
V-Position	Abdominal	2 min.
V-Roll	Abdominal	5
Leg Lift, Sit-Ups	Abdominal	35/35
Half Lever	Abdominal	5 sec.
Squat Jumps	Legs	60
Burpees	Legs and Back	40
Push-Up-Slap Chest	Triceps	25
2. Climbing		
Rope Climb (20')	Biceps	10 sec.
3. Flexibility		
Trunk Extension	Flexibility	15"
Trunk Flexion		10"
Shoulder Flexibility		12"
4. Agility		
Skip Over Leg	Agility	Forward and Backward (2)
5. Hanging		
Skin the Cat	Hanging	5
Monkey Hang		1
Belly Grind		4-6
6. Supporting		
Dips	Supporting	12
Squat Balance		Touch Knees (2)
Grasshopper Walk		Forward and Backward
Grasshopper Walk		Forward and 10 Dips

* See p. 441 for requirements throughout all stages of training.

B. Stunts and Events

Should include new core, review core, and supplementary activities*

Core

Balance

- Forearm balance
- Backward roll to head balance
- Hand balance
- Hand walk

Singles Tumbling

- Dive and forward roll from stand and from run
- Back extension roll
- Jump from platform and forward roll
- Head spring, hand spring, shoulder spring or snap up
- Principles of break-falling forward and backward

Climbing Vertical Rope

- Standing tie-in
- Sitting tie-in
- Hand over hand climb
- Climbing shelf, arm and leg mount still
- swinging
- Dismounts
- Reverse hip circle
- Seat, turn to front rest, lower to hang
- High straddle

Trampoline

- Controlled bounce
- Sit drop
- $\frac{3}{4}$ forward turnover piked
- $\frac{3}{4}$ forward turnover tucked
- Low back drop
- Low front drop

Scope of Supplementary Activities in Pre-Flight Schools

Supplementary material will be drawn from the experience of the expert gymnastic staffs at these schools. This supplementary material may be adapted to the ability level of the cadet if such a plan is thought feasible by the director at each Pre-Flight School.

Lesson Plan for Pre-Flight Schools

The lesson plans are made up of Review core stunts, new core stunts, and supplementary activities. The following lesson plan is suggested as a guide but may be adapted to different situations. The lessons for the gymnastics and tumbling program are set up from the activities listed on the following pages:

GRADE SCALE**

Activities Passed	Grade	Activities Passed	Grade	Activities Passed	Grade	Activities Passed	Grade
0	2.1	5	2.6	10-11	3.1	20-21	3.6
1	2.2	6	2.7	12-13	3.2	22-23	3.7
2	2.3	7	2.8	14-15	3.3	24-27	3.8
3	2.4	8	2.9	16-17	3.4	28 or over	3.9
4	2.5	9	3.0	18-19	3.5	Championship Calibre	4.0

* See scope of supplementary activities on page 415.

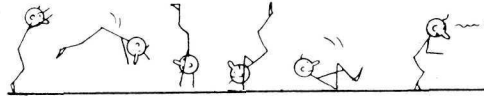
** See p. 403.

SKILLS AND EVENTS IN THE PRE-FLIGHT SCHOOL PROGRAM

- I. TUMBLING
- II. CLIMBING
- III. ALL-OUT EFFORT ACTIVITIES
- IV. VAULTING
- V. BALANCING
- VI. JUMPS AND STUNTS
- VII. APPARATUS STUNTS (Supporting & Hanging)
- VIII. COMPETITION
- IX. TRAMPOLINE

I. TUMBLING*

Standing dive and roll—Run and small dive and roll



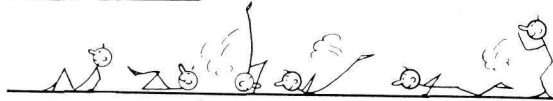
Dive and roll over obstacle



Arch down from head balance



Fish flops



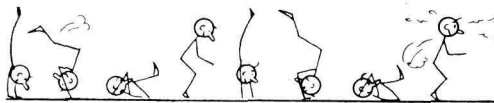
Backward somersault pitch



Backward roll to momentary hand balance and snap down



Hand balance, forward roll



Cartwheel

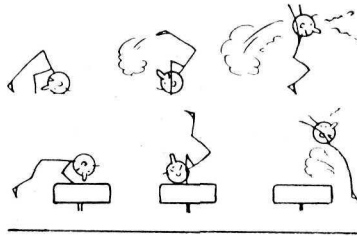


Handspring and headspring



* See pp. 69, 77, 83, 216, 307, 316, 319, 373, 400, 401, 442, 444, 455.

Snap-up



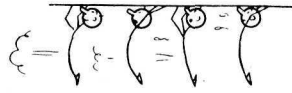
Neck spring or shoulder spring

II. CLIMBING*

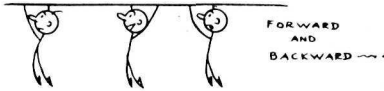
A. Ropes

1. Horizontal

Travel—Hand follow hand



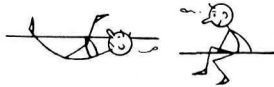
Travel—Hand over hand



Travel—Hand and leg



Side seat



Front lying—20' rope climb in 10 sec.



2. Oblique

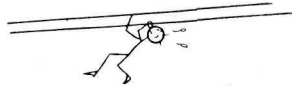
Climb—Hands only



Climb—Hands and Legs



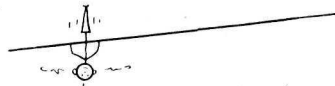
Climb two ropes—Hands only



Front lying position



Inverted hang



3. Vertical

20' climb

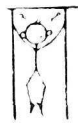


* See pp. 168, 305, 310, 334, 442.

Inverted hang



Climb two ropes

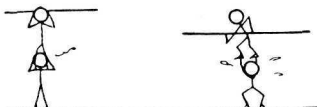


B. Climbing Shelf Drills*

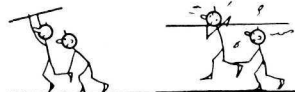
1. Spot at all times directly under climber.

2. Partners (Assists to shelf) A, top man; B, bottom man.

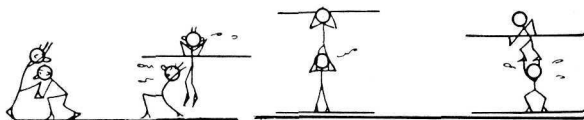
Feet to shoulder



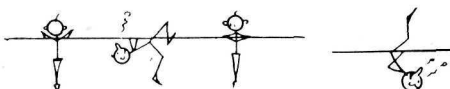
One leg toss from the rear



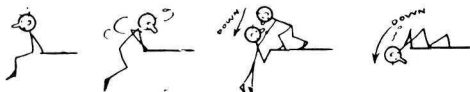
Pitch to shelf—Lifting man on to shelf—(1) One leg lift; assist by A—(2) Pitch; assist by A—(3) Two high; assist by A—(4) Waist lift; assist by A



Methods of getting on shelf—(1) Two hand press (Wrist in false grip)—(2) Two hand grasp; bring one leg on shelf and swing free leg downward—(3) Two hand grasp pull-up and bring elbow on shelf and press to top of shelf—(4) Back hip circle



Getting down from shelf—(1) Sitting and jumping (Landing on feet and rolling)—(2) Sitting and turning to front leaning rest then lower to deck—(3) Lower down by top man—(4) Forward hip circle dismount



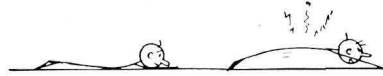
C. Cargo net up and down

Cargo net suspended from ceiling, climb up and down; set your own time

* See p. 311.

III. ALL OUT EFFORT ACTIVITIES*

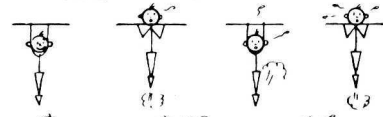
Extension press-up



Half lever



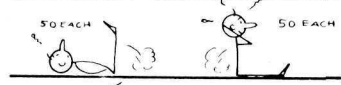
Chins



Dips



Leg lifts and sit-ups



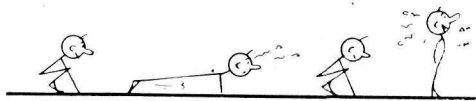
V position forward and backward. Hold left toe with right hand and skip once over the leg. Skip over leg.



Push-ups, slap chest



Burpees



Squat jumps



IV. VAULTING (*Buck or Horse*)**

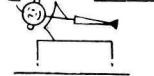
Straddle vault



Front vault



Flank vault



Knee dismount vault



Wolf vault



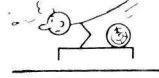
* See pp. 323, 372, 391, 441, 460.

** See pp. 140, 142, 155, 158, 163.

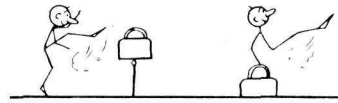
Squat vault



Height vault



Thief vault



Dive and catch



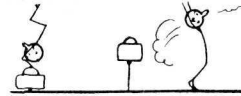
Forward roll vault



Neck spring



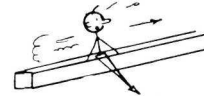
Bent arm handspring



V. BALANCING

A. *Balance Beam**

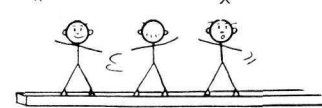
Side seat



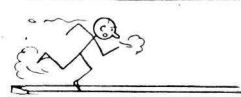
Walk forward



Turn—Turn walk one-half way



Run length of beam



B. *Inverted Balancing***

Head balance



Squat balance—Touch knees 4 times



* See pp. 212, 309, 446, 459.

** See pp. 78, 184, 445.

Forearm balance



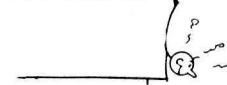
Backward roll to head balance



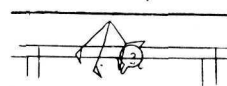
Head balance 10 sec.



Hand balance, low parallel bars



Shoulder balance



Hand balance—same as above



VI. JUMPS AND STUNTS*

Frog jump



Squirrel jump



Seal crawl



Elephant walk



Duck walk



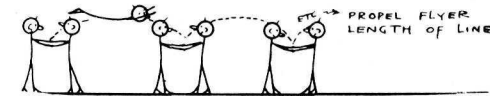
Crab walk



Sit through arms



Dead man pass



Parallel rolls

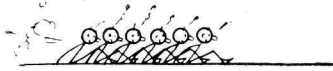


Sink the ship—Two teams—One team forms a ship; opposite team runs and vaults on top of ship trying to sink it—If ship sinks or other team member touches deck then alternate procedure.



* See p. 214.

Boat relay—Team in sitting position; each man puts feet in lap of the man in front; use hands and buttocks to move forward—Front man may use feet; line must not break.



Hip swing-ups, 6
(Belly grinds)



Kip on high bar



Tandem walk



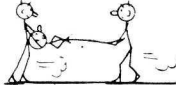
Wheelbarrow



Inverted hand walk



Dead man's carry



Parachute agility



Competition is to be included in each lesson. It may cover:

A. Relays

- (1) Rope climbing
- (2) Balance beam
- (3) Mimetic locomotion
- (4) Vaulting

B. All Out Effort Activity Contests

C. Platoon competition on the basis of checking off stunts

D. Stunts contents

E. Gymnastic meets

F. Obstacle races using gymnasium equipment

IX. TRAMPOLINE (Refer to Chapter XI, p. 239)

LESSON I

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
A. General Instructions and Introduction to Course—5 minutes	5	5	11
1. General information for cadets			
a. Leave shoes on gear rack			
b. Keep shirts on for protection			
c. Keep socks on for sanitary reasons			
d. Meet in semi-circle and bear a hand when called.			
e. Brief review of apparatus nomenclature and repeat parts daily			
f. Explain briefly class procedure of All-Out Effort Activities			
g. Mention records so that the above-average performer can plan his work his work accordingly. Every record broken is equivalent to two stunts			
h. Performer who can do a stunt not listed but worthy of getting credit may ask for credit from the instructor			
i. Cadets should use weights, wrist twist, inclined board, etc., during squad work while waiting their turn to perform			
j. Introduce Grade Scale and explain in the importance of passing the All-Out Effort Activities given throughout the week			
B. All-Out Effort Activities	10	15	22
1. Stress Development of Strength of specific muscle groups			
a. Chins—10			
b. Dips—12			
C. Rope Climbing	10	25	22
1. Short talk relative to importance of rope climbing in their future Naval Aviation career			
2. Stress the following items and practice:			
a. Climb rope hand over hand			
b. Descend rope hand under hand			
c. Use of stirrup in descending. Rope passes along side of body under the near foot and over the far foot			
d. Locks or rests on rope			
(1) Foot and leg lock. Rope passes around one leg and across instep. Step on rope over instep with other foot			
(2) Single leg seat. Cadets attempt single leg seat and stirrup descent			
(3) The weaker individual may get preliminary practice on the climbing poles			
3. Cargo Net is a second week activity. The rope climb prepares individual for cargo net			

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
D. Natural Gymnastics (all squads work on tumbling mats)	10	35	22
1. Travel length of mat. Choose from following jumps			
a. Hop step, hop step, etc. Hop on same foot, lead up for handspring			
b. Four walking steps, then hop step, repeat			
c. Broad jump. Jump up with full turn, broad jump, etc.			
d. Broad jump, forward roll, frog jump, forward roll, etc.			
e. Frog jump			
f. Frog jump, forward roll, frog jump, forward roll, etc.			
g. Squirrel jump			
h. Elephant walk			
i. Seal crawl			
j. Duck walk			
k. Running on all fours			
l. Prone position, arms straight, hop forward on hands			
m. Prone position, arms straight, hop on hands and feet			
n. Jump over man in kneeling position, then get down (like leap-frog without hands)			
E. Relays*	10	45	22
1. Relay, using any of the above stunts			
Mass stunts as "Sink the Ship." One group lines up with hands around mans waist in front of him. All bend forward. Second group leap upon their backs in an effort to break through the line			

LESSON II

A. General Instructions	5	5	11
1. General Information for Cadets			
a. Activities may be passed any day			
b. Additional activities will be given from day to day			
2. Safety Hints			
a. Demonstrate different kinds of grasps on high bar			
b. Only one swing for each trick, beginners dismount on back swing only, thumbs should be around bar			
c. Explain spotting on high bar. (Proper grasp! Always follow your thumb in any event)			
d. Demonstrate spotting on parallel bars, arms under, never over			
e. Demonstrate swing from shoulders back arched			
f. Mention flying rings, mounts, and dismounts, spotters: Front, Middle and Back			

* For competitive relays see Chapter XIV, p. 349.

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
B. Climbing Ropes	5	10	12
1. Vertical Ropes			
a. Climb using hands and feet			
b. Single leg seat and stirrup descent			
C. All-Out Effort Activities	10	20	21
1. Demonstrate and try new stunts			
2. Demonstrate extension press-up. Cadets try. Must hold 5 seconds. If they are having any difficulty have them work from the elbows until they are finally able to do the press			
3. Demonstrate the half-lever. Cadets try, must hold 5 seconds; if they are having difficulty, work from a height. Legs are to be higher than hips.			
4. Demonstrate head balance, 10 seconds. Cadets attempt			
NOTE: Tests of future days for the more advanced students may be presented. (Especially for large platoons in which the proportion of better performers is higher)			
D. Tumbling and Balance	15	35	34
1. Rolls: Forward, backward and combinations. Also introduce the dive and a series of cartwheels			
2. Jump into the air; execute $\frac{1}{2}$ turn; $\frac{3}{4}$ full			
3. Prone; push-ups; clap hands once; then twice			
4. Sit through arms from front leaning rest and outside arms from front leaning rest.			
5. Crab walk forward; down left side of mat; back up right side in continuous line			
6. Crab walk backward; stress keeping buttocks up			
7. Dead man's pass. Cadets opposite hold hands; pass one cadet down line			
8. Cadets lie on top of one another in opposite directions; grasp ankles with hands and roll			
9. Triple rolls			
10. Horse and rider			
11. Wheelbarrow			
12. Tandem walk (four hands, two feet)			
13. Inverted hang—One man does a hand balance on other man's feet; up-right man grasps second man's legs; walks down mat and back.			
14. Dead man carry—Man prone and rigid, other two men grasp his feet and head; carry him down mat and back; changing men at each end of mat			

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
15. Camel walk—Man under; man on top; crawl			
16. Fireman's carry—Change at end of mat			
17. Human hurdles—Half the cadets lie prone; feet together, at right distance apart. The other half raise knees high and run by stepping over their legs. On the return trip they step over backs. For further variation have cadets that are lying down spread the legs so their feet touch the partner next. This is for cross step. This may be worked face upward and on hands and knees			
18. Have squads one and two stand facing each other; three and four doing the same. Squad one put right or left leg in hands of man opposite forming a tunnel. Each man goes through with back parallel to deck, etc. Relay against squads. When reach end, keep forming tunnel to ends of mat			
NOTE: Two or more rows of tumbling mats. Squads one and two on one side of mats. Squad three and four on opposite side of mats. Work accross the mats whenever possible, e.g., rolls balance, etc.			
E. Relays	10	45	22
1. "Sink the Ship"			
2. Boat Relay			
3. Leap frog and its variations			

LESSON III

A. General Instructions and All-Out Effort Activities	45	15	34
1. "V" position (two minutes)			
2. Six belly grinds			
3. Grasshopper walk and 10 dips			
4. Skip over leg			
5. Forearm balance (10 seconds)			
B. Climbing	7	22	16
1. Climb hands and feet (19 feet)			
2. Climb hands only (19 feet)			
3. Make fast and rest			
C. Balancing and Tumbling (Squad)	20	42	43
1. Front safety fall			
2. Fall and sit through roll over and repeat			

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
3. Agility turn (Front fall, right leg flexed, pivot and turn to front leaning rest)			
4. Front fall, legs extended; full pivot to front leaning rest			
5. Balance on toes; eyes closed; hands above the head; left foot on floor; right foot extended; raise to left toe; eyes closed; try to hold balance for 15 seconds.			
6. Ham-string (2 men: A sitting; legs straight. B standing behind him pushes A's back until head touches knees. A keeps hands on knees to force knees straight)			
7. Stretch lower back; same position as 6, down man grasps ankles with knees bent; same procedure			
8. Tough hurdle. Hurdle position; front leg right angle to the body; bend the trunk backward. Second man straddles leg of first man; arm between the hurdler's arms for a safety position			
9. Dead man's lift. Two men; supine on deck; head to head; A rigid; hands at side; B grasps A's head raising him to arm's length position over B's head. (Series of arm push-ups)			
10. One man pull-ups; A prone; B straight; A in spread leg position. Top man's arms straight; lower man grasps wrists of top man; do series of 20 pull-ups			
11. Three man lift. A prone; B standing at A's feet; C standing at A's head; lift A to chest level; change hand grasps; push hard and lift A above heads. Safety man kneels below A.			
12. Mass-jumping. Three men kneeling grasp hands. Three men behind with hands grasped jump over kneeling men; take one step forward and kneel. Third group jump over first two kneeling groups, etc. (Later raise height of jump)			
13. Work in pairs. Two men back to back; sit down and stand up; still remaining back to back (5 times)			
D. Squat Jumps	3	45	7
1. All cadets attempt 40 squat jumps, last 3 minutes			

LESSON IV

A. General Instructions and All-Out Effort Activities..	5	12	11
1. Push-ups and slap chest—25			
2. Push-ups—40			
3. Leg lifts and sit-ups			
E. Balancing	10	15	22
1. Demonstrate and attempt:			

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
a. Backward roll to head balance			
b. Backward roll to hand balance and snap down			
c. Hand balance—work in pairs			
C. Tumbling	6	21	13
1. Break falls. Types of falls:			
a. Falling forward—catch fall, arms extended. Upon landing on hands flex arms, turn head to one side and cushion body to the mat			
b. Backward roll to quick 1/2 turn to front break fall			
c. Falling backward—fall backward, chin on chest. Catch fall with the hands. Point fingers forward, not backward. Arch the back; bend knees slightly			
d. Forward, backward and sideward rolls			
D. Climbing (Horizontal Ropes)	5	26	11
1. Travel—Hand follow hand hanging			
2. Travel—Hand over hand			
3. Travel—Hand and leg hanging			
4. Chinning on ropes			
E. High Bar (Squads 1 and 2)	8	34	18
1. Teach correct grasps and significance of the grasp			
2. Teach hip swing up			
3. Short underswing dismount after hip swing up			
4. Proper method of swinging			
5. Teach dismount on back end of swing			
F. Parallel Bars (Squads 3 and 4) (Travels)	8	42	18
1. Mount bars, walk length of bars, arms straight			
2. Mount bars, walk length of bars backward, arms straight			
3. Inverted or monkey hang position, walk length of bar. (Try the above backwards)			
4. Hand under the bar; travel length, legs in bicycle position			
5. Mount bar; cross riding seats over both bars			
6. Hand under the bar; travel length, legs up, knees to chest			
7. Hand under the bar; travel length, right knee to chest, left leg straight out			
8. Hand under bar; travel length, both legs straight out in front			
9. Mount top of bars, hop across bars, arms straight			

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
10. Mount top of bars; drop to bent arm hang (grasshopper) position and walk length of bar			
11. Mount top of bars; drop to bent arm hang (grasshopper) position and hop length of bar			
12. Finish with vaults at graduation heights			
G. Squat Jumps	3	45	7
1. All cadets attempt 50 squat jumps for last three minutes			

LESSON V

A. General Instructions and Climbing	6	14	
1. Oblique rope			
a. Climb; hanging follow grip			
b. Climb; hands and legs			
c. Rest on topside			
d. Chinning on ropes			
2. Vertical Rope			
a. Climb; hand and leg part way			
b. Rest fast with seat around one leg			
c. Climb; hands and legs; attempt to make 20 feet in 10 seconds			
d. Chinning on ropes			
B. Vaulting	6	12	14
1. Side Horse			
a. Squat vault—Rear vault—Straddle vault—Front vault— Flank vault—Wolf vault			
C. All-Out Effort Activities	10	22	22
1. Demonstrate and have all cadets attempt squat balance 30 seconds			
D. Trampoline (or Balancing)	20	42	43
1. Straight bounce (feet apart, stress form)			
2. Straight bounce with twists			
3. Seat drop			
4. Bounce to knees to stand			
5. Back drops			
6. Seat 1/2 twist to seat			
7. Bounce to forward turnover			

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
E. Squat Jumps	3	45	7
(Last three minutes all cadets attempt 60 squat jumps)			
1. Balancing			
a. Squads 1, 2, 3, and 4 line up along tumbling mats			
b. Squat balance—Head balance with arms folded—Head balance with hands clasped behind head—Head balance with hands on forehead—Forearm balance—Hand balance (kick to hand balance working in pairs; pressing from hand balance with partner's aid)—Hand balances into forward roll (Important that hips are off balance before rolling. If not, come back to feet)			
2. Stress—Do not tuck and roll on the head unless off balance. Attempt some doubles balancing if time permits, such as: Knee and shoulder balance; hand and foot balance; shoulder to shoulder or low arm to arm. <i>Work in Threes</i> , one man spotting			

LESSON VI

A. General Instructions and All-Out Effort Activities	15		34
1. Warm-up every day with rope climb; attempt to climb in 10 seconds; stress spotting (Give proper spotting positions)			
2. Climb cargo net every day (Descend ropes by cargo net with rope between insteps and hand under hand—15 minutes)			
3. Climbing shelf and inclined rope			
4. Review all-out activities of FIRST WEEK			
5. Demonstrate and have cadets attempt front handspring and snap up			
6. Also the Kip on high bar			
B. Squad Routines	30	45	66
1. Squads 1 and 2 work on tumbling; start with warm-up period, series of front and back rolls; follow with series of cartwheels; explain position of hands, head, and feet; series of round-offs			
2. Squads 3 and 4 work on Buck and Rolls—15 minutes			
3. Stress keeping head up, push with both hands, and spring from both feet. Roll on near side followed by vaults. This may be made competitive by moving starting line farther from the buck			
4. Straddle vaults with dive and roll over rolled mat			
5. Straddle vaults with right hand dive and roll over rolled mat			
6. Straddle vaults with left hand dive and roll over rolled mat			
7. Squat vaults with dive and roll over mat			

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
8. Straddle vaults, spur with right foot, roll one length of mat			
9. Straddle vaults, spur with left foot, roll one length of mat			
10. Straddle vaults, spur with both feet, roll one length of mat			
11. Back scissors vault one hand			
12. Back scissors vault two hands			

LESSON VII

A. General Instructions and All-Out Effort Activities	15		34
1. Straddle vault over side horse—maximum height			
2. Demonstrate back handspring			
B. Squad Routines	30	45	66
1. Squads 1 and 2 on cargo net—15 minutes ascending and descending			
2. Squads 3 and 4 on parallel bars—15 minutes			
3. Straight arm walk—Straight arm hop—Grasshopper walk—Grasshopper hop—Lion's crawl			

LESSON VIII

A. General Instructions and All-Out Effort Activities	15		33
1. Climbing			
a. Rope climb for inferior cadets	5	20	11
others 20 climb cargo net			
2. Parachute Agility			
a. Jump and roll from platforms of various heights 5', 8'—10 min.	3	30	27
b. Forward jump and forward roll—backward jump and backward roll. Forward jump with turns into rolls. Backward jump with turns into rolls			
B. Squad Routines	15	45	34
1. Squads 1 and 2 report for vaulting over horse			
2. Squads 3 and 4 report for tumbling (stress handspring)			

LESSON IX

A. General Instructions and All-Out Effort Activities	15		33
B. Cargo Net (Ascending and Descending)	10	25	21
C. Review parachute agility	5	30	12
D. Review vaulting and tumbling	5	30	12
E. Climbing Shelf	10	45	22

LESSON X

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
A. Trampoline—35 minutes and checking off stunts	35		80
B. Balance Beam	10	45	20
1. Cross in side seat—Cross walking forward—Cross walking backward. Walk 1/2 way forward; turn and back off—Crossing by running			

PLAN FOR HOLDOVER CADETS

Names	Muster											Final Grade
		Squad Routine (10 Activities) (1)	Sit ups (Inclined Board) (2)	Push ups (35—3.5, 30—3.0, 25—2.5, and 2.0) (3)	Storm Board for Height, or 10 Chins—3.0 (4)	Straddle Vault over Vaulting Fence (5)	Rope Climb without Feet—8 Seconds (6)	Agility Pegs—All the Way or 12 Dips (7)	Hand Balance—Low Parallels—20 Sec. (8)	Squat Jumps (60 3.5 50—3.0, 40—2.5, and 2.0) (9)	Trampoline—6 Stunts 2.5 (10)	
Terhorst, J.E.		2.0	3.0	3.5	2.5	2.5	2.5	3.0	2.0	2.5	2.5	3.0
Dawson, E.R.		3.0	3.5	2.0	2.0	2.5	2.5	2.0	2.0	3.5	2.0	2.5

EXPLANATION OF ACTIVITIES AND GRADING SYSTEM

- (1) Vertical Rope Climbing. Flank Vault over Buck. Parachute Agility Jump. Storm Board. Horizontal Ropes—All the Way. Agility Pegs 1/2 Way. Balance Beam (hop one foot). Climbing Shelf. First Parallel Bars (hop with hands). Second Parallel Bars (walk with hands). First 4—3.5; Second 4—3.0; Rest —2.5.
- (2) 20—3.5; 15—3.0; 10—2.5; and 2.0.
- (3) 35—3.5; 30—3.0; 25—2.5; and 2.0, for 20.
- (4) Maximum Height—3.5; One nail below maximum height—3.0; Rest—2.5.
- (5) Maximum Height—3.5; Rest 2.5.
- (6) 8 Seconds—3.5; Rest 2.5.
- (7) Start on starboard side and go all the way around.
- (8) 20 Seconds—3.5; 15 Seconds—3.0; 10 Seconds—2.5; and 2.0.
- (9) Any number below 40—2.0.
- (10) a. Seat to feet—b. Knees to feet—c. Seat to knees to feet—4. Belly drop—5. Back to feet—6. Back to belly to feet. Six stunts—2.5; Less than 6—2.0; Outstanding—3.0 or 3.5.

GYMNASTICS AND TUMBLING
PRIMARY FLIGHT PROGRAM

Core Activities

A. All-Out Effort Standards

1. Strength

<i>Achievements</i>	<i>Purpose</i> Muscle Group	<i>Standard</i>
Chins	Biceps	12
Neck Pull-Ups	Biceps	8
Dips	Triceps	12
Push-Ups	Shoulders and Back	40
Extension Press-Ups	Abdominal	7 secs.
V-Position	Abdominal	2½ min.
V-Roll	Abdominal	7
Leg Lifts Sit-Ups	Abdominal	40/40
Half Lever	Abdominal	6
Squat Jumps	Legs	75
Burpees	Legs and Back	50
Push-Up-Slap Chest	Triceps	35
2. Climbing		
Rope Climb (20')	Biceps	9 secs.
3. Flexibility		
Trunk Extension	Flexibility	15"
Trunk Flexion	Flexibility	10"
Shoulder Flexibility	Flexibility	12"
4. Agility		
Skip over Leg	Agility	Forward and Backward (2)
5. Hanging		
Skin the Cat	Hanging	3
Monkey Hang	Hanging	1
Belly Grind	Hanging	6-8
6. Supporting		
Dips	Supporting	12
Squat Balance	Supporting	Touch Knees (5)
Grasshopper	Supporting	Forward and Backward
Grasshopper Walk and 10 Dips	Supporting	10 Dips

7. Review Pre-Flight Core Stunts and Supplementary Activities*

* See Scope of Supplementary Activities p. 415.

Scope and Explanation of Supplementary Activities for Primary, Intermediate and Operational Bases

The supplementary material will be drawn from the following suggested activities and additional material that the instructor may be interested in, may have equipment for, and may be sufficiently familiar with, to teach. It is suggested that the incompletely trained primary base instructor select expert cadet performers as *assistants*, instructors or squad leaders. However, close supervision from the organization and safety angles by the officer is always required.

A. *The trampoline* should function as an extremely beneficial and very popular supplementary activity. Instructors should be sure that cadets are fairly proficient on the review core skills before they progress beyond that point. The trampoline should never be used without supervision by an officer who knows and who will enforce safety rules. Experienced and talented cadets will aid in instruction. It is suggested that instructors refer to the core material on trampoline in the Pre-Flight syllabus, to Chapter XI, and to the following additional suggestions:

1. The best order of progression on any trampoline trick is the following:
 - a. Lead-up stunts well learned including land drills and partial stunts
 - b. Low attempt of whole stunt
 - c. Control of low stunt as to space covered and sureness of safe landing
 - d. Additional height
 - e. Combinations and repetitions
 - f. Refinements of form
2. The spirit of adventure and recklessness is to be discouraged for obvious reasons.
3. Short turns make for a more enjoyable workout for the group and cuts down the chances of injury.
4. It is better to have relatively small groups to a trampoline, say six to ten, to prevent extended intervals of waiting—even though it may mean that the groups will have trampoline less often and that some may have none.
5. The poorer cadets who after pre-flight training on the trampoline still show marked inaptitude on the trampoline are not apt to profit greatly from much additional trampoline work.
6. The chance to use the trampoline may be used as a stimulus as a reward for standards achieved in more tedious and less attractive activities.

B. *Partner Balancing and Tumbling* is another vast field for supplementary activity permitting muscular development, cooperative effort, endless variety and progressions, and utilizing minimum equipment and space. *Safety precautions must be emphasized.* The instructor may refer to the core material in the Pre-Flight and Flight Preparatory syllabus; to the references listed therein; to Chapter VIII; and to the following additional suggestions:

1. Adequate mat area or other relatively soft but firm deck or ground covering is preferable.
2. Completely adequate protection should be provided when learning all high balance and risky somersault tricks. At least two trained, alert spotters should be on guard constantly.
3. Proficiency should be acquired in a few stunts before proceeding to increasingly difficult tricks.

4. The parts method of teaching is sound pedagogy. The trick should be broken down into simple parts. The elementary forms should be mastered before proceeding to complicated variations.
 5. Partner assignments should be relatively permanent. Cadets should be advised to select suitable partners, i.e., the stronger, heavier understander should work with a lighter, agile topmounter.
- C. *Pyramid Building* is another supplementary activity equally effective without equipment or with the use of parallel bars, horses, tables or ladders. Pyramids should be based on previously taught Partner Stunts or on individual skills. Spotter protection should be adequate. Care should be taken to have work well planned in order to insure active participation by all. The instructor may refer to pyramid work in the syllabus and to Chapter IX.
- D. *Springboard Vaulting and Springboard Tumbling* are further interesting and enjoyable supplementary activities built from core skills. They are more advanced and like the trampoline should never be used except under expert, trained supervision. Springboard vaulting over a well padded and sufficiently high obstacle ($5\frac{1}{2}$ to 7 ft. high) to a thick soft landing pad or pile of mats (6" to 18" thick) should precede springboard tumbling (without obstacle) as an activity. The springboard tumbling except in its most elementary form should be confined to the superior performers and to the experienced instructor. The instructor may refer to Chapters VIII and X.
- E. *Regulation Apparatus Stunts* on the horizontal bar (low and high). Parallel bars or rings or side horse and tumbling are also excellent supplementary material for the later stages of training. Work may be adapted to individual differences but never encouraged to progress in difficulty faster than is obviously safe for the individual. The instructor should refer to descriptive material on apparatus stunts, given in the references and to Chapters VIII, IX and X. The instructor should not attempt to teach advanced apparatus work unless he is fully qualified to do so.
- F. A general moving ahead on the events covered in the core program or any one of them such as Tumbling, Balancing, Climbing or Vaulting is another form of highly acceptable supplementary activity. Material of this type can be drawn from advanced cadets, instructors' experience, in Athletic Journal and Journal of Health and Physical Education, and Chapters VIII, IX and X.
- F. Finally, supplementary activity may be interpreted to include the above activities especially in Pre-Flight School. It is also important that:
1. Additional stress should be given to the core activity beyond that implied in the original presentation and review thereof, for the purpose of improving form and precision.
 2. Core material should be utilized in combinations, routines and races, time trials and various forms of testing.

Suggested Lesson Plans and Organization for Tumbling and Gymnastics at the Primary Bases

No single plan of class organization will serve at all Primary bases due to the variable factors of instructor personnel, availability of cadets and differences in the physical plant itself. For these reasons several plans are presented with the expectation that the instructor will utilize that plan best suited to his own situation.

A. The following principles must be observed:

1. Due to the lapse of time between the work at the Flight Preparatory and the Primary Training Base the first two lessons must be devoted entirely to review of the core material taught at the previous schools. Such a procedure will give the instructor a minimum standard from which to start. He will then know the weak and the skilled cadets respectively.
2. The activities for the remaining six lessons may then be drawn from material referred to in "Scope and Explanation of the Supplementary Act for Primary, Intermediate and Operational Bases" and presented by following one of the "Suggested Program and Sample Lesson Plans."
3. The beginning of each lesson should be devoted to warm-up and all-out effort activities designed to limber up, stretch, and strengthen the muscles, stimulate circulation and in general prepare the body for more strenuous activity. These should include chins, dips, push-ups, extension press-ups, etc. This may be done by special exercises or review of the fundamentals previously covered.
4. Ropes should be climbed daily.
5. Material must be arranged in progressive order.

PRIMARY BASE GRADE SCALE

Activities Passed	Grade	Activities Passed	Grade	Activities Passed	Grade	Activities Passed	Grade
0	2.1	5	2.6	10-11	3.1	20-21	3.6
1	2.2	6	2.7	12-13	3.2	22-24	3.7
2	2.3	7	2.8	14-15	3.3	Over 25	3.8
3	2.4	8	2.9	16-17	3.4	26	3.9
4	2.5	9	3.0	18-19	3.5	Championship Calibre	4.0

ACTIVITIES

1. Extension Press (7 Seconds)	16. Hand Balance (10 Secs., within 3 ft. circle)
2. Half Lever (7 Seconds)	17. Straddle Vault (Horse maximum height)
3. Chins (12)	18. Skip over Leg (Forward and backward twice)
4. Dips (12)	19. Hip Swingups or Belly Grinds (6)
5. V-Position (2½ Minutes)	20. Kip on High Bar (1)
6. Leg Lifts and Sit-ups (40 Each)	21. Snap-up
7. Squat Jumps (65)	22. Handspring (Front)
8. Squat Balance (Touch knees 5 times)	23. Handspring (Backward)
9. Push-ups (Slap chest 25 times)	24. Backward Roll to Head Balance
10. Push-ups (40)	25. Backward Roll, momentary Hand Balance and Snap down
11. Single Leg Seat (Ropes) and Stirrup Descent	26. New Records (Equivalent to two stunts)
*12. Rope Climb (20 Ft.—9 secs.)	27. Grasshopper Walk and 10 Dips
13. Cargo Net (Up and down)	28. Burpees 40
14. Head Balance (10 Seconds)	29. Sit-ups (Back arched) 40
15. Forearm Balance (10 Secs.)	

* Rope climbing is required of all cadets.

NOTE: Suggested list of activities and grade scale may be altered at the discretion of the instructor to suit the needs of his situation. See pp. 371, 403 for sample grade sheet.

6. Use competitive relays.*
7. An objective system of grading should be used.

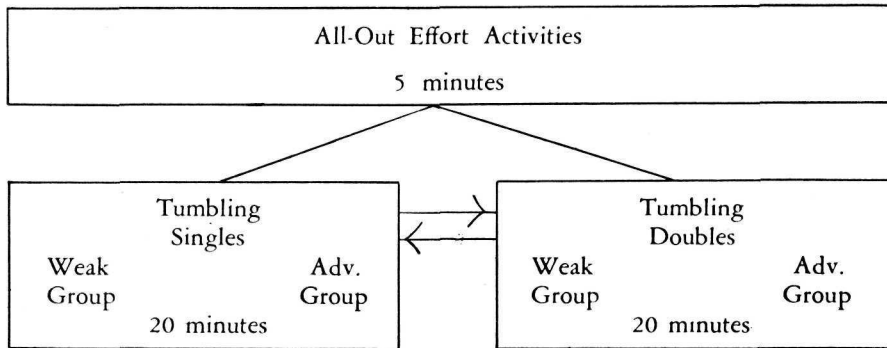
Suggested Organization and Sample Lesson Plan Where Class Organization Is a Single Group

Where only instructor is available, or where limitations of space or equipment exist, it may be necessary to maintain a single working group, and to concentrate on a single activity for the entire 45 minute period.

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. All-Out Effort Activities	5	5	11
II. Singles	20	25	44
1. Dive rolls (over 2 cadets on hands and knees)			
2. Extension rolls			
3. Neck spring			
4. Round off—extension roll			
5. Cartwheels			
III. Doubles	20	45	44
1. Double roll forward			
2. Double roll backward			
3. Partner shoulder balance			
4. Two high shoulder mount			
5. Thigh balance (partners facing)			

ORGANIZATION PLAN



Suggested Lesson Plan for Class Divided into Three Groups

If the director of gymnastics and tumbling finds it advisable to divide his class into three groups using one instructor and two cadet assistants, or two instructors and one cadet assistant, the following lesson plan is submitted to help him in the organization of his first class activities.

* See Chapter XIV.

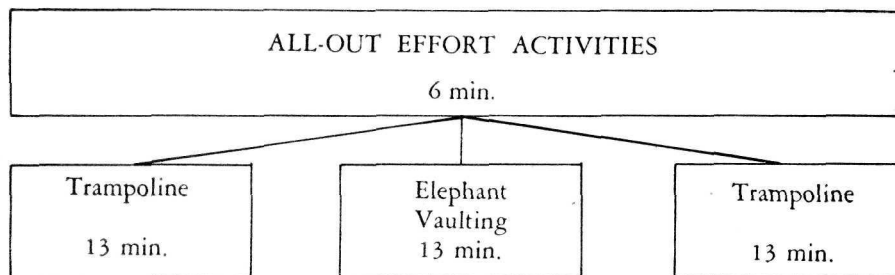
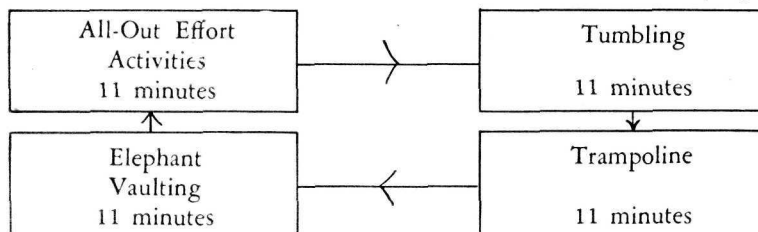
	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. All-Out Effort Activities	6	6	2+
II. Tumbling	13	19	32+
A. Review Core Material			
1. Forward roll to head balance			
2. Forward roll from run			
3. Backward extension roll			
4. Dive and forward roll from run			
5. Head spring			
6. Hand spring			
7. Hand balance			
8. Walk on hands			
9. Forearm balance			
III. Elephant Vaulting	13	32	32+
1. Flank vault right and left			
2. Low front vault right and left			
3. Squat vault to mount and jump to mat			
4. Squat vault through to stand on mat			
5. Straddle vault to mount and jump to mat			
6. Straddle vault through to stand on mat			
7. Shoulder snap, hands on near bar			
8. Head spring, hands on far bar			
9. Hand spring, hands on far bar			
IV. Trampoline	13	45	32+
A. Review Core Material			
1. Bouncing into $\frac{1}{2}$ twist			
2. Consecutive $\frac{1}{2}$ twisting bounces			
3. Bouncing full twists, right and left			
4. Bouncing from full twist right into full twist left			
5. Bouncing to seat to knees to feet			
6. Back drop to feet			

With this type of class organization each group will rotate every 13 minutes so that during the 45 minute period three activities will be given each group. Assistants who possess the proper amount of training and responsibility to assist the instructor in teaching may be picked from the cadets of the preceding classes.

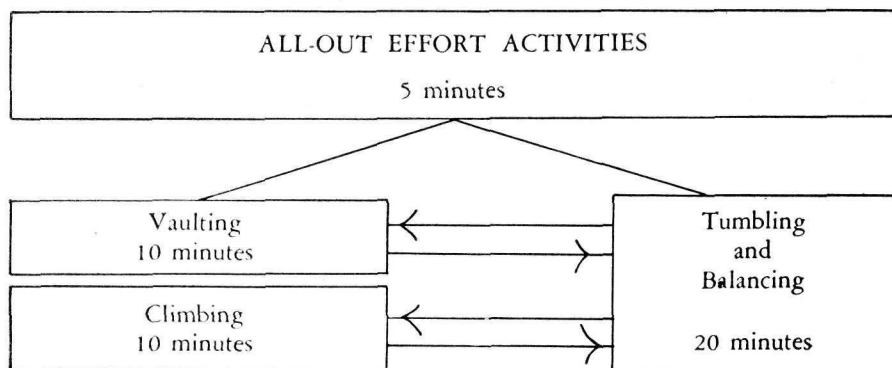
The activities may be varied from day to day so that over any appreciable length of time all apparatus and tumbling activities will have been covered adequately.

After an adequate review of core activities has been given such supplementary material as is deemed advisable may be selected from the Manual at the discretion of the instructor.

ORGANIZATION PLAN

*Alternate Plan Using All-Out Effort Activities As One of the Rotating Groups*

ORGANIZATION PLAN

*Suggested Organization and Sample Lesson Plan Where Class Organization Is Two Groups*

The gymnastics and tumbling activity can be directed very effectively in small groups. In this set-up the class is divided into two groups, each under the direction of one instructor.

On the basis of a 45 minute period, 5 minutes shall be allowed for all-out effort activities. Each group shall have 10 minutes of vaulting, 10 minutes of climbing and 20 minutes of tumbling and balancing each period. The instructional duties shall be so divided that one instructor directs the 20 minute unit while the other instructor directs the two 10 minute units.

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. Tumbling and Gymnastics			
A. All-Out Effort Activities10	10	22
B. Vaulting and Climbing10	20	22
1. Vaulting—buck			
a. Straddle vault			
b. Front vault			
c. Flank vault			
d. Knee dismount vault			
e. Wolf vault			
f. Squat vault			
g. Height vault			
Repeat each vault twice or more. Come to a stand after first vault, and roll out of second.			
2. Climbing—Horizontal rope10	30	22
a. Travel—Hand follow grip, hanging			
b. Travel—Hand over hand			
c. Travel—Hand and leg hanging			
d. Chinning on ropes			
Review on double ropes if available.			
C. Tumbling and Balance			
1. Balancing Beam	5	35	12
a. Cross in side seat			
b. Cross walking forward			
2. Tumbling	10	45	22
a. Forward roll			
b. Broad jump with turns			
c. Backward rolls			
d. Frog hand balance and roll			
e. Frog head balance and roll			
f. Introduction to hand balance. (Partner lift to hand balance)			

SAMPLE LESSON PLAN

In this suggested lesson plan the class is divided into two groups, each group participating in a different activity. The selection of movements will be made from core and supplementary lists in the manual for primary bases at the direction of instructor in charge to facilitate differences in time, length of period, ability of cadets, numbers of groups and facilities available.

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
I. All-Out Effort Activity	10	10	22
II. Balance Beam	20	30	44
1. Travel on side straddle support			
2. Walk across			
a. Forward			
b. Backward			
3. Run across			
a. Forward			
b. Backward			
4. Side step across			
5. Cat walk across forward			
6. Passing in walk			
III. Rope Climbing	15	45	34
1. Leg around secure			
2. Leg around ascend			
3. Leg around descend			
4. Cross leg climb			
5. Cross leg secure			
6. Cross leg descend			
NOTE: Suggested activity combinations:			
Vaulting and Apparatus			
Tumbling and Trampoline			
Rope Climbing and Balance Beam			

PROGRAM FOR INTERMEDIATE AND OPERATIONAL BASES

When the cadet is ready for his intermediate flight work he has received twelve months of progressive training in gymnastics and tumbling. He has obtained instruction in all the core material as well as experience in supplementary activities. His upper body strength has been developed to a degree where he should be able to control his body satisfactorily for most activities that will confront him. The standard of everybody has been thoroughly checked at Primary Flight Bases. The better performers will have been thoroughly grounded in fundamentals of safety and should be ready to try more advanced tricks. The important thing now is to provide adequate time allotment for them and a competent officer who can guide and supervise the work properly. Adhere to the following principles in planning your lessons.

1. Your plan of organization may be made from studying the lesson plans of the previous stages of training. No plans are therefore offered in the syllabus.
2. Include a check on the core material as part of your lesson plans.
3. The supplementary material may be selected from "Scope Supplementary Material" (p. 415).
4. Warm-up:
About 3 minutes from each lesson should be devoted to warm-up or condi-

tioning exercises. This may be done by special exercises or review of the fundamentals previously covered. One method is to have cadets execute movements at top speed upon command:

- a. Stationary run!
- b. On your belly! Stand up!
- c. Touch head to deck! Stand up!
- d. Fall forward—Squat!—Turn right! Turn left! Stand up!
- e. Forward roll!—Backward roll!

Repeat series until group is thoroughly warmed-up.

5. An effort should be made to include more than one gymnastic activity in each lesson. The trampoline and doubles tumbling and balancing would be good choices for activities.
6. Material must be arranged progressively from simple to complex.
7. Competition is to be included in each lesson. It may cover:
 - a. Relays
 - (1) Rope climbing
 - (2) Balance beam
 - (3) Mimetic locomotion
 - (4) Vaulting
 - b. All-out effort activity contests
 - c. Platoon achievement on the basis of the number of stunts checked off by platoons
 - d. Stunt contest
 - e. Gymnastic meets
 - f. Obstacle races using gymnastic equipment or cadets
8. Grading

The gymnastics and tumbling program at the Intermediate and Operational bases consists entirely of supplementary (optional) activity. Since there is no core material required to be taught the objective grading as used throughout the training up to this point cannot be used. Therefore, it is necessary for each of the following bases to grade the cadets as accurately as possible based upon the activities selected for your particular program. However, the practice of reviewing core activities with groups and individuals in need of such review will continue and for these individuals the same grading system used at the Primary may be used.

PROGRAM FOR OFFICERS ON SHORE STATIONS

Introduction

It is assumed that all Naval officers will at some time or other be assigned to sea duty. Officers then should be adequately informed as to the techniques of self preservation and safety pertaining to gymnastics and tumbling. In order to make full use of these safety techniques, officers need to be in proper physical condition. Assuming that the officers of any ship or station differ greatly in age, conditions, and previous training, a survey should be made as to their needs and interests. From this survey a tentative flexible program of instruction should be outlined which should be adjustable and adequate to individual differences, time and facilities.

If a minimum amount of time is available, techniques (core activities) should

be taught which are adjudged of utmost importance in self safety and preservation, such as climbing and falling. If more time is available activities should be presented which will create interest and enjoyment. Each officer should be encouraged to progress as far as possible to stimulate his interest and further learning.

Objectives

The main objective is to teach officers the use of safety measures inherent in gymnastics and tumbling drills which will be of a practical nature in event of emergency.

More specifically the objectives may be stated as follows:

1. To maintain the highest degree of physical and mental efficiency
2. To provide diversional activities
3. To develop the native sense of balance
4. To provide strength and agility necessary in an emergency

In order to achieve these objectives it is advisable to plan the lessons so as to permit:

1. Enjoyment and satisfaction in successful performance.
2. Review and further instruction for those whose level of achievement has been retarded or neglected
3. Further instruction (supplementary material) for advanced performers
4. Instruction for officers who have not had the advantage of Naval Aviation training, i.e., Staff Administrative, Flight Instructors, etc.

Time Element

The time allotted for this activity will vary considerably at different stations, hence the instructor must adapt his program to the current needs and situations.

Tentatively, for the purpose of facilitating the organization of class lessons, 60 minutes will be allotted per lesson.

Motivation

The success of the gymnastic and tumbling program will depend, to a large extent upon proper motivation. Plan the lessons so that each individual will be able to perform with a reasonable degree of satisfaction and accomplishment.

One of the strongest motivation factors with a group, which may include older men who have led sedentary lives, is the factor of practical application. In other words, should they find themselves in an emergency situation which will demand certain skills and adequate physical endurance and ability, they will be able to apply those activities they are being taught to help extricate themselves. An explanation of the various emergency situations such as: descending rope on abandoning ship; climbing up a cargo net; climbing from a crashed plane; falling properly in parachute landings. Such parallel explanations of skills involved will help in pointing out the usefulness of techniques being taught.

Provide adequate opportunity for diversional and selective activities.

SUGGESTED LESSON PLAN FOR OFFICERS

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
Muster	3	3	5
Explanation and Discussion	4	3	6
Explain importance of maintaining proper physical condition and learning techniques taught in Gymnastics and Tumbling. Demonstrating skills			
Warm-Up and All-Out Effort	8	15	13
Limber up, stretch muscles and stimulate circulation			
Climbing Activities	10	25	17
Vaulting, handing and supporting activity	10	35	17
Tumbling activity	10	45	17
Free time activity	15	60	24

SUGGESTED MATERIAL ACTIVITIES*

I. Climbing Activities

A. Stunts

1. Vertical ropes (See Chapter IX)
 - a. Rope Exercise to develop strength
 - (1) Lower the back to deck and up
 - (2) Climb $\frac{1}{2}$ way up and down
 - (3) Chin on ropes
 - (4) $\frac{1}{2}$ lever chinning
 - b. Leg around secure
 - c. Leg around climb
 - d. Leg around descend
 - e. Cross leg shinny up
 - f. Cross leg secure
 - g. Cross leg descent
 - h. Stirrup climb
 - i. Stirrup descent
 - j. Stirrup secure
 - k. Climbing without legs
 - l. Standing tie-in
 - m. Sitting tie-in
2. Horizontal Ropes
 - a. Hand follow hand grip
 - b. Hand over hand
 - c. Hand and legs
 - d. Sloth walk
3. Oblique Ropes
 - a. Hands only climb
 - b. Hands and legs

* Refer pp. 396, 442 and also to Chapters VIII, IX, X, XI.

II. Tumbling Activity

A. Stunts

1. Jumping down mats—hands on hips—feet together
2. Jumping down mats—one foot—hands on hips
3. Frog jump
4. Jumping down mats—feet together—right or left side, forward
5. Stride reaching forward
6. Crab walk—forward, backward, sideward
7. Duck waddle
8. Forward roll—from squat position
9. Forward roll—from standing position
10. Forward roll—from stand to lying on back
11. Running forward roll
12. Forward roll with hands clasping shins
13. Forward roll with hands under thighs
14. Forward roll with hands grasping toe
15. Forward roll with arms folded
16. Forward roll with hands using one foot
17. Frog head balance and forward roll
18. Backward roll from full knee bend
19. Backward roll from stand
20. Backward roll with feet together and legs straight
21. Backward roll from legs crossed to stand turn into forward roll
22. Shoulder roll
23. Triple lateral or parallel rolls
24. Double roll forward and backward
25. Dive and roll
26. Backward roll extension
27. Jump from platform and forward roll
28. Jump from platform and backward roll
29. Head spring
30. Hand spring
31. Snap up
32. Cart wheel
33. Round off
34. Round off into backward roll

III. Vaulting Activity

A. Side horse

1. Front vault right and left
2. Flank vault
3. Fencer's vault—single pommel grasp, right and left
4. Rear vault
5. Squat mount
6. Squat vault
7. Straddle mount
8. Straddle vault
9. Thief vault

- B. Elephant vaulting
 - 1. Low front vault
 - 2. Flank vault
 - 3. Squat mount
 - 4. Squat vault
 - 5. Straddle mount
 - 6. Straddle vault
 - 7. Neck roll snap to stand
 - 8. Head spring
 - 9. Hand spring
- IV. Supporting Activity
 - A. Parallel Bars
 - 1. Hand travelling
 - 2. Travelling cross riding seats
 - 3. Inverted hang end of bars
 - 4. Skin the cat, end of bars
 - 5. Upper arm hang swinging
 - 6. Swinging cross rest position
 - 7. Swinging cross rest position, front dismount
 - 8. Swinging cross rest position, rear dismount
 - 9. Shoulder balance from cross riding seat
 - 10. Shoulder roll forward from shoulder balance
 - V. Hanging Activity
 - A. Rings
 - 1. Legs circling—right and left, motion at waist
 - 2. Skin the cat
 - 3. Travelling rings
 - 4. Swinging—half twists at each end of swing
 - 5. Still rings—nest hang
 - 6. Swinging rings—nest hang
 - 7. Still rings—inverted hang
 - 8. Swinging rings—inverted hang
 - 9. Still rings—chinning and pull up to support
 - 10. Still rings—single leg cuts and catch
 - 11. Swinging rings—single leg cuts and catch
 - VI. Free Time Activity
 - A. Trampoline
 - B. Rowing machines
 - C. Chest weights
 - D. Stall Bars
 - E. Weight lifting
 - F. Medicine balls
 - G. Spring board
 - H. Partner stunts

PROGRAM FOR ENLISTED MEN ON SHORE STATIONS

Introduction

There is no assurance that enlisted personnel will have had previous instruction in gymnastic and tumbling skills. In fact, these men will be comparable to a battalion of cadets in the first stage of training (except for a few cases in which the ages differ). They will present a range in ability from very poor to excellent. There may be immediate need for these skills. The enlisted men must be instructed in these skills. This is a difficult task and must be undertaken and accomplished by the officer in charge of gymnastics. Although the main effort should be directed toward the below average group, the responsibility toward the trained opponent should not be overlooked. Since the enlisted man's tour of duty aboard shore stations varies considerably, it will be necessary for the instructor of gymnastics to use his own discretion in following these lessons.

Objectives

1. To equip the seaman with strength and skill to extricate himself from emergency situations requiring *climbing*, tumbling and balance
2. To teach landing and falling without injury
3. To develop the native sense of balance

Lesson Plan for Enlisted Men on Shore Stations

Program to be made up from a list of activities considered basic in all phases of Aviation Training, together with additional (optional) material. These lists are referenced to full descriptions of stunts in the appendix of the syllabus.

A detailed lesson plan based on twelve 60 minute lessons and including all basic activities and some additional activities is provided as a recommended program. Variations are expected and no limit is placed on achievement.

However, the following principles must be observed:

1. Muster procedure should not infringe upon gymnastics and tumbling
2. Warm-up (See page 368)
3. The basic material should be adequately covered
4. Material must be arranged in a progressive order
5. Time allotment of lessons

The time allotments for each lesson are based on a 60 minute period. If the time allotment is shorter, the indicated time can be adjusted. The activities indicated by the asterisk (*) are those activities considered as basic. If time does not permit the use of the entire syllabus these activities so marked should be taught first, following the order in which they appear in the lessons.

If time be allowed for more than twelve lessons, the instructor should continue with additional lessons on the same basis as the twelve suggested in this plan. More emphasis, however, may be placed upon a more advanced program through the use of suggested material in the additional group. The trend, too, should deviate increasingly from the formal type of class procedure to one which is diversional in character.

List of Activities**I. Tumbling. (Mats)****A. Basic**

1. Forward Roll
 - a. From squat
 - b. From stand
2. Backward Roll
 - a. From squat
 - b. From stand
3. Diving Roll
 - a. Standing
 - b. Running
4. Shoulder Rolls
5. Jump rolls from platforms
6. Falls—Front, back
7. Backward extension roll
8. Head spring
9. Snap up
10. Hand spring

B. Additional

1. Fish flops
2. Lateral dive rolls
(jumbles)
3. Double rolls
(monkey rolls)
4. Round off
5. Back handspring
(flip flop)
6. Front somersault
(over rolled mat)
7. Back somersault

II. Balance (Mats)**A. Basic**

1. Frog Head balance
2. Frog Hand balance
3. Plain head balance
4. Forearm balance
5. Hand balance
- a. With assistance
- b. Against rolled mat
- c. Against bulkhead
6. Walk on hands

B. Additional

1. Partner should stand
2. Chest balance on partner's
back
3. Swan balance
4. Foot to hand balance
5. Thigh mounts (two high)
6. Triple balancing

III. Climbing (Vertical Ropes)**A. Basic**

1. Leg around
 - a. Climb
 - b. Secure
 - c. Descend
2. Cross leg Shinny
 - a. Climb
 - b. Secure
 - c. Descend
3. Stirrup
 - a. Climb
 - b. Secure
 - c. Descend
4. Standing tie in
5. Sitting tie in
6. Hand over hand
7. Two ropes
 - a. Reverse Hang
 - b. Inverted Hang
 - c. Nest Hang

B. Additional

1. Inverted hang and secure
2. Rocking chair
3. Instep squeeze descend

IV. Horizontal Ropes

A. Basic

1. Hand follow hand
2. Hand over hand
3. Front lying

B. Additional

1. Hand and leg (Sloth walk)

C. Climbing (Cargo net)

1. Ascending
2. Descending

V. Vaulting (Side Horse, Vaulting Box, Buck or improvised vaulting stand).

A. Basic

1. Squat stand
2. Squat vault
3. Flank vault
4. Straddle stand
5. Front vault
6. Wolf vault
7. Straddle vault
8. Knee stand
9. Rear vault
10. Thief vault
11. Series of squats
12. Dive and catch
13. Neck spring

B. Additional

1. Straddle vault
 - a. Single tap on neck
 - b. Double tap (croup to neck)
2. Squat vault (Single and double tap)
3. Scissors vault (Single and double tap)
4. Hand spring
5. Stoop vault

C. Elephant vaulting

VI. Trampoline

A. Basic

1. Controlled bounces
2. Sit drop
3. Knee drop
4. Front drop
5. Back drop
6. $\frac{3}{4}$ Front turnover piked
7. $\frac{3}{4}$ Front turnover tucked
8. Full front turnover (Somersault)

B. Additional

1. Backward turnover

VII. Low Parallel Bars (Regulation or improvised)

A. Basic

1. Shoulder balance
2. Chest balance
3. Hand balance

B. Additional

1. Hand balance (one bar)
2. Pirouette

VIII. High Parallel Bars

A. Basic

- | | |
|---------------------------|---------------------|
| 1. Cross rest position | 6. Rear vault |
| 2. Straddle seat position | 7. Swing |
| 3. Travels | 8. Dip swing |
| 4. Straddle roll | 9. Shoulder balance |
| 5. Scissors | |

B. Additional

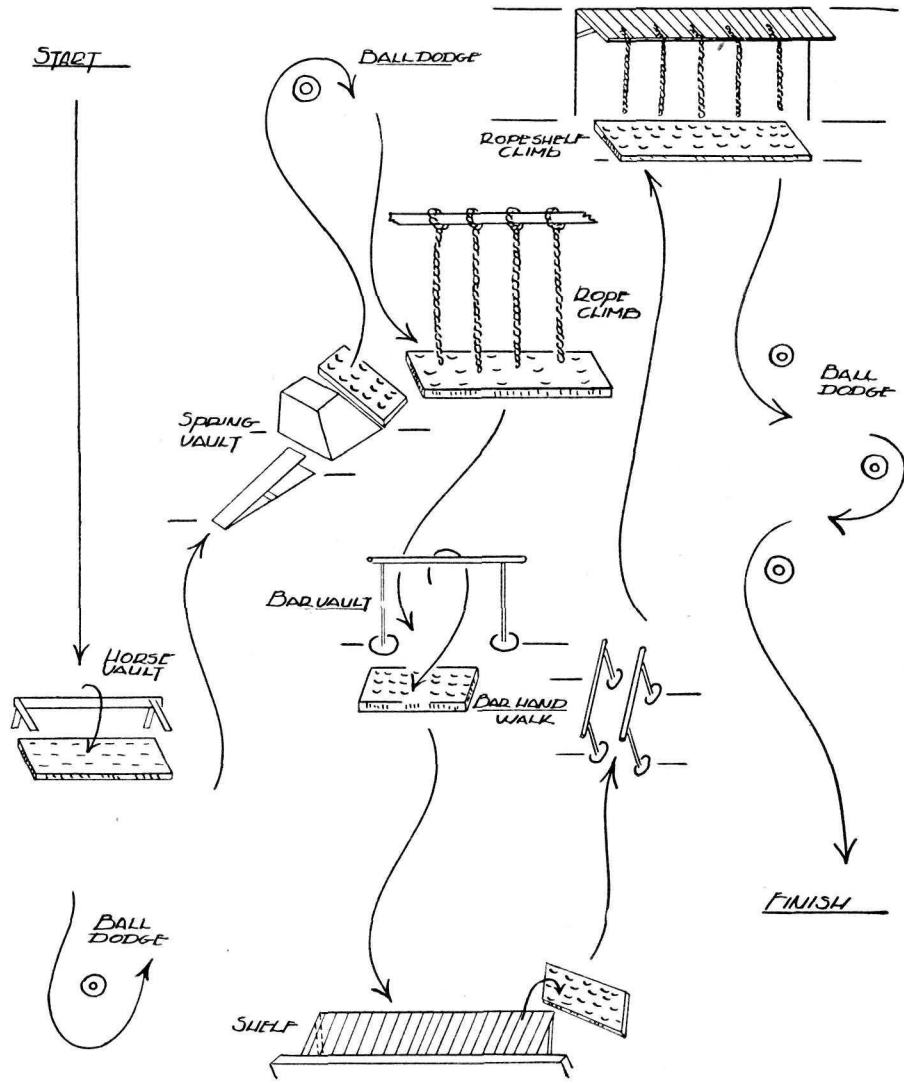
- | | |
|--------------------------------|-----------------|
| 1. Swing in upper arm position | 4. Hand balance |
| 2. Back and front uprise | a. Kick up |
| 3. Upper arm rip | b. Swing up |

LESSON I

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
A. <i>Muster</i>	2	2	3
B. <i>Explanation on Tumbling and Gymnastics</i>	10	12	16
A brief resume of importance of tumbling and gymnastics, as set forth in the objectives of this syllabus.			
C. <i>Warm up and All out Effort Activity</i>	5	17	9
The beginning of each lesson should be devoted to warm-up and all out effort activity designed to limber up, stretch and strengthen the muscles, stimulate circulation and generally prepare the body for more strenuous activity. These should include chins, push ups, 1/2 levers, dips, extension press up*			
D. <i>Tumbling and Balance</i>	15	32	25
1. Hopping length of mat (Hands on hips, feet together)			
2. Duck Walk (Walking in squat position)			
3. Bear walk (Walking on hands and feet, legs stiff)			
4. Crab walk (Body inverted, hands, feet on deck)			
*5. Simple forward roll			
*6. Frog Head balance			
*7. Frog hand balance			
8. Combination of frog head and hand balance into forward roll			
E. <i>Climbing (Vertical Ropes)</i>	15	47	25
*1. Leg around climb			
*2. Leg around descent			
*3. Two rope reverse hang			
Explanation on use of ropes			
F. <i>Diversional Activity</i>	13	60	22
1. Relay—See accompanying list			

* Refer to Chapter XIII, p. 323.

INDOOR COURSE



Layout for indoor obstacle course using gymnasium equipment.

LESSON II

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
A. <i>Muster</i>	2	2	3
B. <i>Warm up and All out Effort Activity</i>	5	7	9
C. <i>Tumbling and Balance</i>	15	22	25
1. Review of simple forward roll			
*2. Series of forward rolls			
*3. Shoulder rolls—right and left			
4. Series of shoulder rolls alternately right and left.			
5. Head stand with assistance			
D. <i>Climbing (Vertical Ropes)</i>	15	37	25
1. Review first lesson			
*2. Cross leg shinny			
*3. Cross leg secure			
*4. Cross descent			
5. Inverted hang on two ropes			
E. <i>Vaulting (Side horse at vaulting box)</i>	12	49	20
1. Squat stand			
2. Squat vault			
3. Flank vault—Right and left			
F. <i>Diversional Activity</i>	11	60	18

LESSON III

A. <i>Muster</i>	2	2	3
B. <i>Warm up and All out Effort Activity</i>	5	7	10
C. <i>Tumbling and Balance</i>	15	22	25
1. Review series of forward rolls			
2. Review shoulder rolls			
*3. Backward rolls (From squat and from standing)			
*4. Series of backward rolls			
*5. Head balance			
a. Partial assistance			
b. No assistance			
D. <i>Climbing (Vertical ropes)</i>	10	32	16
1. Review second lesson			
*2. Stirrup climb			
*3. Stirrup secure			
*4. Stirrup descent			
*5. Full length climb by "leg around" method			
6. Nest hang on two ropes			
7. Review of all double rope hangs			

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
E. <i>Vaulting</i>	10	42	16
1. Review second lesson			
*2. Straddle stand			
*3. Straddle vault			
*4. Front vault right and left			
F. <i>Diversional Activity</i>	18	60	30
1. Competitive Relay			

LESSON IV

A. <i>Muster</i>	2	2	3
B. <i>Warm up and All out Effort Activity</i>	5	7	10
C. <i>Tumbling and Balance</i>	15	22	25
1. Review backward rolls			
2. Combination of rolls			
*3. Standing forward dive rolls			
4. Series of standing dive rolls			
5. Head balance (without assistance)			
*6. Backward and front falls			
D. <i>Climbing</i> (Vertical ropes)	10	32	16
1. Review all methods of climbing			
*2. Climb to top with cross leg shinny and return			
*3. Climb to top with cross leg shinny and down adjoining ropes with stirrup method			
4. Review all two rope hand			
E. <i>Vaulting</i> (Side horse or vaulting box)	10	42	16
1. Review front and straddle vaults			
2. Wolf vault			
*3. Rear vault			
F. <i>Diversional Activity</i>	18	60	30
1. Obstacle relay race (using available equipment with stunts previously taught)			

LESSON V

A. <i>Muster</i>	2	2	3
B. <i>Warm up All out Effort Activity</i>	5	7	10
C. <i>Tumbling and Balance</i>	15	22	25
1. Review standing dive rolls			
2. Review series of standing dive rolls			
*3. Running dive rolls			
*4. Dive over obstacle			
5. Front fall, squat through to seat			
6. Frog head balance, press into head balance, then into forward roll			

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
D. <i>Climbing</i>	8	30	13
1. <i>Cargo net</i>			
*a. Ascending and descending			
2. <i>Vertical Ropes</i>			
a. Climb to top and return, repeating immediately			
E. <i>Vaulting</i> (Side horse or vaulting box)	10	40	16
1. Review all vaults previously learned			
*2. Thief vault			
F. <i>Diversional Activity</i>	20	60	33
1. Supervised practice on all skills			

LESSON VI

A. <i>Muster</i>	2	2	3
B. <i>Warm up and All out Effort Activity</i>	5	7	10
C. <i>Tumbling and Balance</i>	20	27	33
1. Review running dive roll over obstacle			
*2. Running dive roll over increased number of obstacles			
*3. Jumping from platform with forward and back rolls			
D. <i>Climbing</i> (Vertical ropes)	8	35	13
1. Ascending and descending cargo net for time			
2. Ascending and descending vertical ropes for time			
E. <i>Vaulting</i> (Side horse and vaulting box)	10	45	16
*1. Diving and catch			
2. Series of squats			
F. <i>Diversional Activity</i>	15	60	25
1. Horse and rider competition			

LESSON VII

A. <i>Muster</i>	2	2	3
B. <i>Warm up and All out Effort Activity</i>	5	7	9
C. <i>Diversional Activities</i>	53	60	88
1. Supervised Activity period			
a. Individual participation in practicing all skills previously taught			

LESSON VIII

A. <i>Muster</i>	2	2	3
B. <i>Warm up All out Effort Activity</i>	5	7	9
C. <i>Tumbling and Balance</i>	15	22	25
1. Backward roll to head balance			
2. Backward extension roll			
*3. Snap up			

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
D. <i>Climbing</i> (Vertical ropes)	10	32	16
*1. Hand over hand without legs			
*2. Standing tie in			
*3. Sitting tie in			
E. <i>Apparatus</i>	28	60	47
1. Low parallels			
*a. Shoulder balance			
b. Chest balance			
2. High parallels			
*a. Cross rest position			
b. Walk length of bars in cross rest position			
c. Straddle seat travel			
3. Trampoline			
*a. Controlled bounce			
*b. Sit drop			
*c. Knee drop			

LESSON IX

A. <i>Muster</i>	2	2	3
B. <i>Warm up and All out Effort Activity</i>	5	7	9
C. <i>Tumbling and Balance</i>	15	22	25
1. Review backward roll to head balance			
2. Backward roll to head balance to chest roll			
3. Review snap-up			
*4. Neck or head spring from rolled mat			
D. <i>Climbing</i> (Horizontal) (Ropes, Bars, or Ladders)	8	30	13
*1. Hand follow hand			
*2. Hand over hand			
*3. Rest position (Top)			
E. <i>Apparatus</i>	30	50	50
1. Low parallel			
a. Review shoulder and chest balance			
*b. Shoulder balance forward roll to straddle			
2. High parallel			
a. Review straddle seat travel			
b. Cross rest position swing			
c. Dip swing and travel			
3. Trampoline			
a. Review bounces in 8th lesson			
b. Bounces with $\frac{1}{4}$, $\frac{1}{2}$, and full turns			
*c. Combination of knees to feet to seat to feet, adding $\frac{1}{2}$ turns			

Time Allotment

	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
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LESSON X

A. <i>Muster</i>	2	2	3
B. <i>Warm up and All out Effort Activity</i>	5	7	9
C. <i>Tumbling and Balance</i>	15	22	25
1. Backward extension roll			
*2. Handspring on rolled mat			
*3. Forearm balance			
D. <i>Apparatus</i>	38	60	63
1. Low parallel			
*a. Hand balance			
2. High parallel			
*a. Forward straddle roll			
*b. Dismount			
1. Rear vault			
c. Combinations of preceding stunts			
3. Trampoline			
a. Review preceding stunts			
b. Low front drop			
c. Low back drop			

LESSON XI

A. <i>Muster</i>	2	2	3
B. <i>Warm up and All out Effort</i>	5	7	9
C. <i>Tumbling and Balance</i>	15	22	25
*1. Running front handspring			
*2. Hand balance with assistance			
*3. Hand balance without assistance			
*4. Walking on hands			
D. <i>Apparatus</i>	20	42	33
1. High parallel			
a. Review combinations of preceding stunts			
*b. Shoulder balance			
*c. Roll from shoulder balance			
d. Scissors on backward swing			
2. Trampoline			
a. Warm up with combinations of preceding stunts			
*b. $\frac{3}{4}$ turn over piked			
*c. $\frac{3}{4}$ turn over tucked			
E. <i>Diversion</i>	18	60	30
1. Supervised activity on all equipment			

LESSON XII

	<i>Time Allotment</i>		
	<i>Specific</i>	<i>Total</i>	<i>Percent</i>
A. <i>Muster</i>	2	2	3
B. <i>Warm up and All out Effort Activity</i>	5	7	9
C. <i>Tumbling and Balance</i>	15	22	25
*1. Cartwheels			
2. Series of headsprings			
3. Series of snap-ups			
4. Combination of handspring, headspring and snap-up.			
D. <i>Apparatus</i>	38	60	63
1. Supervised activity on apparatus using suggested stunts			
Competitive Relays should be used in lessons. Refer to page			

SUGGESTIONS FOR OTHER PROGRAMS

CARRIERS

Introduction

Gymnastics can add greatly to maintenance of conditions during service aboard carriers. Recent naval encounters have shown the importance of a knowledge of climbing, vaulting and balancing.

The athletic officer on a carrier will be called upon to improvise because of limited facilities. Carriers are equipped with ropes and cargo nets in some instances, and these have proved to be satisfactory both in creating enthusiasm and in providing the opportunity for maintaining good physical condition.

The following pages offer suggestions that may help with a carrier program.

Stunts*

- A. Single Balancing* (See Chapter X)
 1. Frog Head Balance
 2. Frog Hand Balance (Squat Balance)
 3. Jack Head Balance
 4. Head Balance
 5. Forearm (Tiger) Balance
 6. Hand Balance
- B. Balance Beam* (See Chapter X, and p. 446)
 1. Seat Travels
 2. Walk Forward and Backward
 3. Run Forward and Backward
 4. Sideward Walk
- C. Partner Stunts* (See Chapter X)
 1. Back Roll over Back

* For full descriptions see Syllabus.

2. Double Turnover Holding Hands
 3. Double Turnover Holding Waists
 4. Shoulder Balance
 5. Belly Balance
 6. Standing Balance
 7. Chest Balance
 8. Arm to Arm Balance
 9. Hand to Hand Balance
 10. Ankle Pick Up
- D. Pyramids
- Pyramid building either with or without apparatus, combines easily with the program in tumbling. Useful for ship entertainment, it creates a spirit of teamwork and cooperation as well. Pyramids vary from the simple two man partner stunt to any number that may wish to participate. Selected pyramids are listed in the syllabus. Also refer to Chapter X.
1. Two Man Pyramid
 2. Three Man Pyramid
 3. Six Man Pyramid
 4. Seven Man Pyramid
 5. Nine Man Pyramid
 6. Thirteen Man Pyramid
- E. Rope Climbing (Vertical Ropes) (See page 168)
1. Leg Around Secure
 2. Leg Around Climb
 3. Leg Around Descent
 4. Cross Leg Climb
 5. Cross Leg Secure
 6. Stirrup Climb
 7. Stirrup Descent
 8. Stirrup Secure
- F. Rope Climbing (Horizontal) (See Chapter IX)
1. Hand Follow Hand
 2. Hand over Hand
 3. Sloth Walk
- G. Cargo Net (See Chapter IX)
1. Climbing
 2. Descending

DETAILS OF PROGRAM FOR OFFICERS ON FOREIGN BASES

Suggestions

It is rather impractical to try to prescribe an organized gymnastic program for foreign stations. Weather, equipment, locality, and personnel have to be taken into consideration. In the syllabus provided, several phases of gymnastic activity are given. Different methods have been suggested previously describing ways of improvising some equipment for outdoor activities. A survey should be made of available facilities, personnel needs, material and interest.

* See p. 13-22.

Objectives

1. To maintain the highest possible degree of physical and mental efficiency
2. To provide diversional activity
3. To improve the native sense of balance

PHYSICAL TRAINING PROGRAM FOR OFFICERS' CHILDREN

Gymnastics and tumbling lends itself favorably to the promotion of a program for officers' children particularly at the Pre-Flight School. Below is a schedule which is used effectively at one of the Pre-Flight Schools. If facilities were available, swimming would be an excellent activity to interchange with tennis.

CHILDREN'S PROGRAM SCHEDULE

Boys and Girls 9 to 14 Years of Age

CLASS	MONDAY	WEDNESDAY	FRIDAY
10:00 10:30	Calisthenics Games	Marching Tactics	Tumbling
10:30 11:00	Tennis Instruction	Pyramids Tumbling	Play Gymnastics and Marching Tactics
11:00 11:30	Trampoline	Trampoline	Folk Dancing or Tennis Instruction
<i>Boys and Girls 5 to 8 Years of Age</i>			
10:00 10:30	Calisthenics Relays	Games	Story Hour Stunt Songs
10:30 11:00	Tumbling	Balancing or Trampoline	Tumbling
11:00 11:30	Balancing Stunts Acrobatics	Stunt Songs Singing Games	Relays or Games