

NAV AIR 01-90CE-1

NATOPS Flight Manual

NAVY MODELS
UC-45J, RC-45J
AIRCRAFT

THIS PUBLICATION SUPERSEDES NAVWEPS 01-90CE-1 OF 1 JAN-
UARY 1951 REVISED 1 JANUARY 1954, AND C-45 NATOPS MANUAL

ISSUED BY AUTHORITY OF THE CHIEF
OF NAVAL OPERATIONS AND UNDER
THE DIRECTION OF THE COMMANDER
NAVAL AIR SYSTEMS COMMAND

1 AIRCRAFT

2 INDOCT

3 NORMAL
PROCD

4 FLIGHT
PROCD

5 EMERG
PROCD

6 ALL WTHR
OPERATION

7 COMM
PROCD

8 SPECIAL
MISSIONS

9 FLT CREW
COORD

10 NATOPS
EVAL

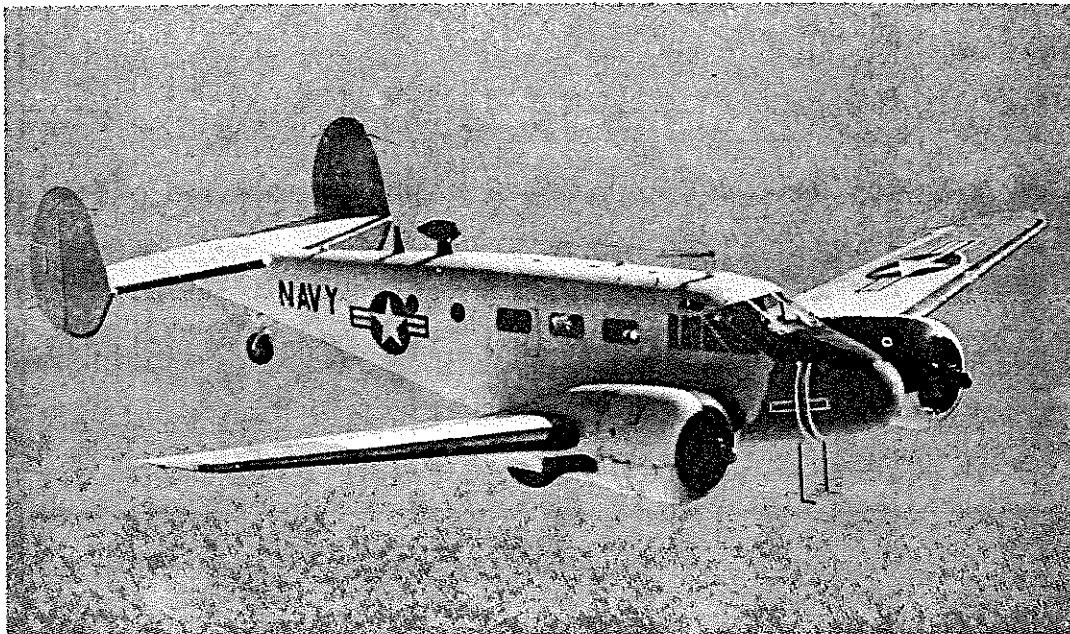
11 PERFORM
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15 November 1967

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NAVAIR 01-90CE-1J
(USAF) T.O. 1C-45B-1J

USAF SERIES NAVY MODEL
C-45B C-45F JRB-3 JRB-4
AIRCRAFT

THIS PUBLICATION SUPPLEMENTS T.O. 1C-45B-1/NAVAER 01-90CE-1.
Reference to this supplement will be made on title page of the basic handbook by
personnel responsible for maintaining the publication in current status.

PUBLISHED UNDER AUTHORITY OF THE SECRETARY OF THE AIR FORCE
AND THE COMMANDER OF THE NAVAL AIR SYSTEMS COMMAND

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4 SEPTEMBER 1956

1. PURPOSE.

To prohibit take-off with snow or ice on the aircraft.

2. GENERAL.

Failure to remove snow and ice accumulated on aircraft while on the ground can result in serious aerodynamic and structural effects when flight is attempted. Depending on the weight and distribution of the snow and ice, take-off distances and climb-out performances can be adversely

affected. This roughness, pattern and location of the snow and ice can affect stall speeds and handling characteristics to a dangerous degree. In flight structural damage has also resulted due to vibrations induced in flight by unbalanced loads of unremoved accumulations. These hazards can be eliminated by removing the snow and ice from the wings, fuselage, and tail before flight is attempted.

3. INSTRUCTIONS.

Remove all snow and ice accumulations prior to flight.

END

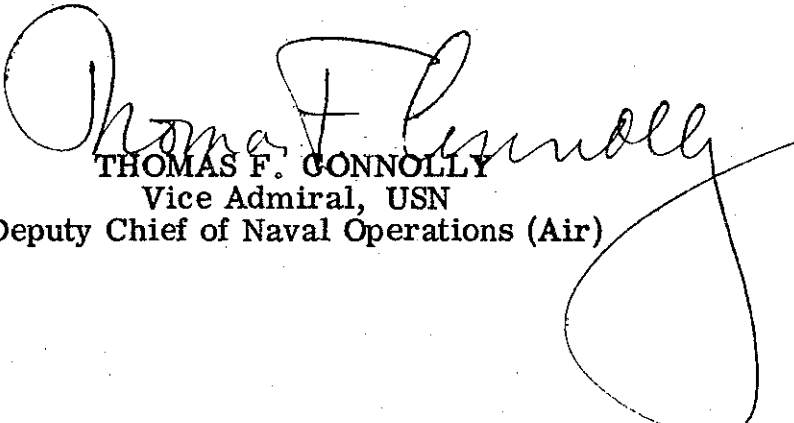


DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
WASHINGTON, D.C. -20350

15 November 1967

LETTER OF PROMULGATION

1. The Naval Air Training and Operating Procedures Standardization Program (NATOPS) is a positive approach towards improving combat readiness and achieving a substantial reduction in the aircraft accident rate. Standardization, based on professional knowledge and experience, provides the basis for development of an efficient and sound operational procedure. The standardization program is not planned to stifle individual initiative but rather, to aid the Commanding Officer in increasing his unit's combat potential without reducing his command prestige or responsibility.
2. This manual standardizes ground and flight procedures but does not include tactical doctrine. Compliance with the stipulated manual procedure is mandatory except as authorized herein. In order to remain effective, NATOPS must be dynamic and stimulate rather than suppress individual thinking. Since aviation is a continuing progressive profession, it is both desirable and necessary that new ideas and new techniques be expeditiously evaluated and incorporated if proven to be sound. To this end Type/Fleet/Air Group/Air Wing/Squadron Commanders and subordinates are obligated, authorized and directed to modify procedures contained herein, in accordance with OPNAV Instruction 3510.9 series and applicable directives, for the purpose of assessing new ideas, in a practical way, prior to initiating recommendations for permanent changes. This manual is prepared and kept current by the users in order to achieve maximum readiness and safety in the most efficient and economical manner. Should conflict exist between the training and operating procedures found in this manual and those found in other publications, this manual will govern.
3. Checklists and other pertinent extracts from this publication necessary to normal operations and training should be made and may be carried in Naval Aircraft for use therein. It is forbidden to make copies of this entire publication or major portions thereof without specific authority of the Chief of Naval Operations.


THOMAS F. CONNOLLY
Vice Admiral, USN
Deputy Chief of Naval Operations (Air)

Flyleaf

FOREWORD

SCOPE

The NATOPS Flight Manual is issued by the authority of the Chief of Naval Operations and under the direction of the Commander, Naval Air Systems Command in conjunction with the Naval Air Training and Operating Procedures Standardization (NATOPS) Program. It provides the best available operating instructions for most circumstances, but no manual is a substitute for sound judgement. Multiple emergencies, adverse weather, or terrain may require modification of the procedures contained herein. Read this manual from cover to cover. It's your responsibility to have a complete knowledge of its contents.

ARRANGEMENT

The manual is divided into eleven sections as follows:

SECTION I - The Aircraft

Part 1, General Description - An introduction to the aircraft.
 Part 2, Systems - Description and operation of all major systems, including normal and emergency operation.
 Part 3, Aircraft Servicing - Description and operating procedures for complete servicing.
 Part 4, Aircraft Operating Limitations - Restrictions for operation of the aircraft, engines, and systems which must be observed for safe flight.

SECTION II - Indoctrination And Training

An introduction to requirements for ground training, flight training, flight crew requirements, personal flying equipment, and pilot currency requirements for compliance with the NATOPS program.

SECTION III - Normal Procedures

Part 1, Briefing and Debriefing - A general outline of requirements.
 Part 2, Mission Planning - A guide to effective planning, including definition of responsibilities.
 Part 3, Shore-based Procedures - Standard normal procedures used to conduct flight operations from an on-shore station.
 Part 4, Carrier-based Procedures - Not Applicable.

SECTION IV - Flight Procedures And Characteristics

A summary of standard in-flight procedures, and the latest available data concerning aircraft characteristics throughout all phases of flight.

SECTION V - Emergency Procedures

Standard procedures to be followed during an emergency which could reasonably be expected.

SECTION VI - All-Weather Operation

Additional information and procedures required for flight under all weather conditions.

SECTION VII - Communications Procedures

Procedures utilized to standardize all forms of communications, including the use of electronic navigation equipment.

SECTION VIII - Special Missions

Description and operating procedures for RC-45J oblique and vertical aerial photography.

SECTION IX - Flight Crew Coordination

Not Applicable

SECTION X - NATOPS Standardization Evaluation

Concept, definitions, implementations, ground and flight evaluation, final grade determination, records and reports, evaluation question blank, and evaluation forms.

SECTION XI - Performance Data

Graphic and tabular data of aircraft performance to be used for effective mission planning.

HOW TO GET COPIES

AUTOMATIC DISTRIBUTION

To receive future changes and revisions to this manual automatically, a unit must be established on the automatic distribution list maintained by the Naval Air Technical Services Facility (NATSF). To become established on the list or change distribution requirements a unit must submit NAVWEPS Form 5605/2 to NATSF, 700 Robbins Ave., Philadelphia, Pennsylvania listing this manual and all other NAVAIR publications required. For additional instructions refer to BUWEPSINST 5605.4 series and NAVSUP publication 2002.

ADDITIONAL COPIES

Additional copies of this manual and changes thereto may be procured by submitting a NAVSTRIP Form DD 1348 to NSD Philadelphia in accordance with NAVSUP Publication 2002.

UPDATING THE MANUAL

To ensure that the manual contains the latest procedures and information, a review conference will be held periodically as necessary.

YOUR RESPONSIBILITY

NATOPS Flight Manuals are kept current through an active manual change program. If you find anything you don't like about the manual, if you have information you'd like to pass along to others, or if you find an error in this manual, submit a change recommendation to the Model Manager.

CHANGE RECOMMENDATIONS

Recommended changes to this manual or other NATOPS publications may be submitted by anyone in accordance with OPNAV INSTRUCTION 3510.0 (series). Change recommendations of an URGENT nature (safety of flight, etc.,) should be submitted directly to the NATOPS Advisory Group Member in the Chain of Command by priority message.

Submit routine change recommendations to the Model Manager on OPNAV Form 3500-22.

Address routine changes to:

Commanding Officer
Naval Air Station
Quonset Pt, R.I.
ATTN: C-45 NATOPS Evaluator

NATOPS FLIGHT MANUAL INTERIM CHANGES (FMIC'S)

FMIC'S are changes or corrections to the NATOPS Flight Manuals promulgated by CNO or NAVAIR-SYSCOM. FMIC'S may be received by the individual custodian as a printed page or pages, or by the commands as a naval message. After the completion of the action directed by an interim change, it shall be retained in front of the Interim Changes Summary Page of the Manual unless it contains authorization to discard.

INTERIM CHANGE SUMMARY

The interim change summary in each manual is provided for the purpose of maintaining a complete record of all interim changes issued to the manual. Each time the manual is changed or revised, the interim change summary will be updated to indicate disposition and/or incorporation of previously issued interim changes. When a regular change is received, the interim change summary should be checked to ascertain that all outstanding interim changes have been either incorporated or cancelled; those not incorporated should be re-entered and noted as applicable.

CHANGE SYMBOLS

Revised text is indicated by a black vertical line in either margin of the page, like the one printed next to this paragraph. The change symbol shows where there has been a change. The change might be material added or information restated.

WARNINGS, CAUTIONS, AND NOTES

The following definitions apply to "WARNINGS", "CAUTIONS", and "NOTES" found throughout the manual

WARNING

Operating procedures, practices, etc., which may result in injury or death, if not carefully followed.

CAUTION

Operating procedures, practices, etc., which, if not strictly observed, may damage equipment.

NOTE

An operating procedure, condition, etc., which is essential to emphasize.

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