BY ORDER OF THE COMMANDER
SPANGDAHLEM AB (USAFE)

SPANGDAHLEM AIR BASE
INSTRUCTION

91-213

9 JUNE 2021

Certified Current 19 SEPTEMBER 2025

Safety

52D FIGHTER WING MID AIR COLLISION AVOIDANCE (MACA) PLAN

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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(Col David C. Epperson)

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This instruction implements Air Force Policy Directive (AFPD) 91-2, *Safety Programs*, and provides guidance for the participation and execution of the Midair Collision Avoidance (MACA) Program as mandated by Air Force Instruction (AFI) 91-202, *The US Air Force Mishap Prevention Program*. This operating instruction applies to the 52 Fighter Wing Safety office (52d FW/SE), 52 Operations Group (52 OG), 52 OG Standardization Evaluation office (52 OG/OGV), 52 Operational Support Squadron (52 OSS), 52 OSS Airfield Operations Flight (52 OSS/OSA), Assigned Fighter Squadrons (FS), and 726 Air Mobility Squadron (726 AMS) which are responsible for developing and implementing procedures that will minimize midair collisions. The 52 Fighter Wing Flight Safety office (52d FW/SEF) has the overall responsibility for monitoring and coordinating the 52d FW MACA Program. Headquarters United States Air Forces Europe Flight Safety office (USAFE/SEF) is the Major Command (MAJCOM) Office of Primary Responsibility (OPR) for the MACA program. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363_USAFESUP, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF 847, *Recommendation for Change of Publication*; route AF 847s from the field through the appropriate functional's chain of command. The authorities to waive wing/unit level requirements in this

publication are identified with a Tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, Table 1.1 for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items.

SUMMARY OF CHANGES

This document is substantially revised and must be completely reviewed annually no later than January 1 and updated as appropriate. Changes must be forwarded to the 52d FW/SE within 30 days of the annual review date. The office of primary responsibility for this document is the 52d Fighter Wing Flight Safety Office.

1. Purpose. The potential exists for midair collisions with every sortie launched or recovered at Spangdahlem Air Base (SAB). This instruction is developed to identify and examine potential midair collision in the local area and when possible, mitigate its occurrence. This plan fulfills the requirements established in AFI 91-202, The U.S. Air Force Mishap Prevention Program. This plan is distributed to units tasked in the plan. It will be used by all appropriate agencies in order to mitigate the occurrence of a mid air collision at Spangdahlem Air Base.

2. Roles and Responsibilities.

2.1. The Flight Safety Officer (FSO) will:

2.1.1. Establish a MACA Working Group to evaluate the midair collision threat.

2.1.2. Act as chairman of the 52d FW MACA working group.

2.1.3. MACA Working Group members will include:

2.1.3.1. 52 OSS/OSA (AOF/CC).

2.1.3.2. 52 OSAT/OSAR (CCTLR).

2.1.3.3. 52 OSS/OSAM (AFM).

2.1.3.4. 52 OG/OGV Standardization Evaluation representative.

2.1.3.5. An IP from the 480th FS.

2.1.3.6. 726 AMS/CC or delegated suitable substitute.

2.1.4. Ensure all received MACA information is forwarded to the appropriate agencies.

2.1.5. Investigate all incidents involving alleged near misses between 52d FW and other aircraft IAW AFI 91-204*, Safety Investigations and Reports*.

2.1.6. Ensure newly assigned pilots are briefed during theater indoctrination on the midair collision potential in Europe and techniques to reduce it.

2.1.7. The 52d FW FSO maintains records of MACA activities and briefs them at quarterly Flight Safety meetings.

2.1.8. If the FSO is not available the Chief of Safety (COS) will designate a member to fulfill all responsibilities.

2.2. The 52 OG/CC will:

2.2.1. Provide an aircrew member from 52 OG/OGV Standardization Evaluation office to serve on the MACA Working Group.

2.2.2. Ensure the Supervisor of Flying (SOF) is briefed to notify aircrew by any means available of increased civil flying activity in the vicinity of Spangdahlem Air Base.

2.2.3. Ensure all MACA material received from 52d FW/SEF is disseminated to all OG squadrons.

2.3. The 52 OSS/DO will:

2.3.1. Appoint the following to the MACA working group:

2.3.1.1. 52 OSS/OSA Airfield Operations Flight Commander (AOF/CC).

2.3.1.2. 52 OSS/OSAM Airfield Manager (AFM).

2.3.1.3. 52 OSS/OSAT Chief Controller (CCTLR).

2.4. The 52 OSS/OSA will:

2.4.1. Serve as a member of the MACA Working Group.

2.4.2. Assist 52d FW/SEF in the investigation of the HATR or informal complaints involving ATC services.

2.4.3. Ensure that potential problem areas within the TMA or Spangdahlem airport traffic area is brought to the attention of the MACA Working Group.

2.4.4. Inform pilots of new developments in local ATC procedures and occurrences which affect pilots through various avenues such as Instrument Review Course briefings, SOF meetings, Quarterly Flight Safety meetings, and pilot/controller liaison meetings.

2.5. The 52 OSS/OSAM will:

2.5.1. Be a member of the MACA Working Group.

2.5.2. Act as an interface between base and local airport managers on MACA matters.

2.5.3. Ensure copies of AF Form 651 are available in flight planning/dispatch areas and that any form completed is promptly forwarded to 52d FW/SEF.

2.6. The 52 OSS/OSAT will:

2.6.1. Serve as a member of the MACA Working Group.

2.6.2. Assist 52d FW/SEF in the investigation of HATR or informal complaints involving ATC services.

2.6.3. Ensure that potential problem areas within the TMA or Spangdahlem airport traffic area is brought to the attention of the MACA Working Group.

2.6.4. Inform pilots of new developments in local ATC procedures and occurrences which affect pilots through various avenues such as Instrument Review Course briefings, SOF meetings, and Quarterly Flight Safety meetings.

2.7. The 480 FS/CC will:

2.7.1. Appoint an Instructor Pilot (IP) to be a member of the MACA working group.

2.7.2. Ensure copies of AF Form 651, *Hazardous Air Traffic Report (HATR),* are available in flight planning/dispatch areas and that any form completed is immediately forwarded to Wing Safety.

2.7.3. Ensure pilots are aware of the following areas of potential conflict:

2.7.3.1. Airspace Notice To Airman (NOTAM) for intensive aircraft/parachuting activity.

2.7.3.2. Glider ports.

2.7.3.3. Active parachute areas.

2.7.3.4. Airfield control zones.

2.7.3.5. Known low level choke points.

2.7.3.6. Protection zones.

2.7.4. Ensure pilots brief MACA considerations and techniques during flight briefings.

2.8. The 726 AMS/CC will:

2.8.1. Appoint a suitable rated representative capable of representing operational concerns on behalf of the 726 AMS to the MACA Working Group.

2.8.2. Develop a process to include transient aircrew MACA discrepancies into the working group.

2.8.3. Ensure that potential problem areas within the Traffic Management Area (TMA) or Spangdahlem airport traffic area are brought to the attention of the MACA Working Group.

2.8.4. Ensure MACA information is disseminated to controllers and aircrew.

2.8.5. Ensure copies of AF Form 651 are available in flight planning/dispatch areas and that any form completed is promptly forwarded to 52d FW/SEF.

2.9. The MACA Working Group will:

2.9.1. The MACA Working Group will meet at minimum twice a year.

2.9.2. The following issues will be reviewed:

2.9.2.1. Possible conflicts in local Visual Flight Rules (VFR) flying areas and routes.

2.9.2.2. Arrival and departure routes will be reviewed for conflicts.

2.9.2.3. The MACA Working Group will report its activities and any recommended changes to the 52d FW/SE Chief of Safety and 52 OG/CC.

DAVID C. EPPERSON, Colonel, USAF
Commander, 52d Fighter Wing

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 91-202, *The US Air Force Mishap Prevention Program,* 12 March 2020

AFI 91-204, *Safety Investigations and Reports,* 5 August 2019

AFI 33-322, *Management of Records*

AFPD 91-2*, Safety Programs,* 3 September 2019

Prescribed Forms

None

Adopted Forms

AF Form 651, *Hazardous Air Traffic Report (HATR)*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

AFM—Airfield Manager

AOF—Airfield Operations Flight

CCTLR—Chief Controller

COS—Chief of Safety

FS—Fighter Squadron

FSO—Flight Safety Officer

HATR—Hazardous Air Traffic Report

IP—Instructor Pilot

MACA—Mid Air Collison Avoidance

NOTAM—Notice to Airman

SOF—Supervisor of Flying

TMA—Traffic Management Area

VFR—Visual Flight Rules

Attachment 2

52D FW SPANGDAHLEM AB MACA PAMPHLET

Figure A2.1. 52d FW Spangdahlem AB MACA Pamphlet, Part 1.

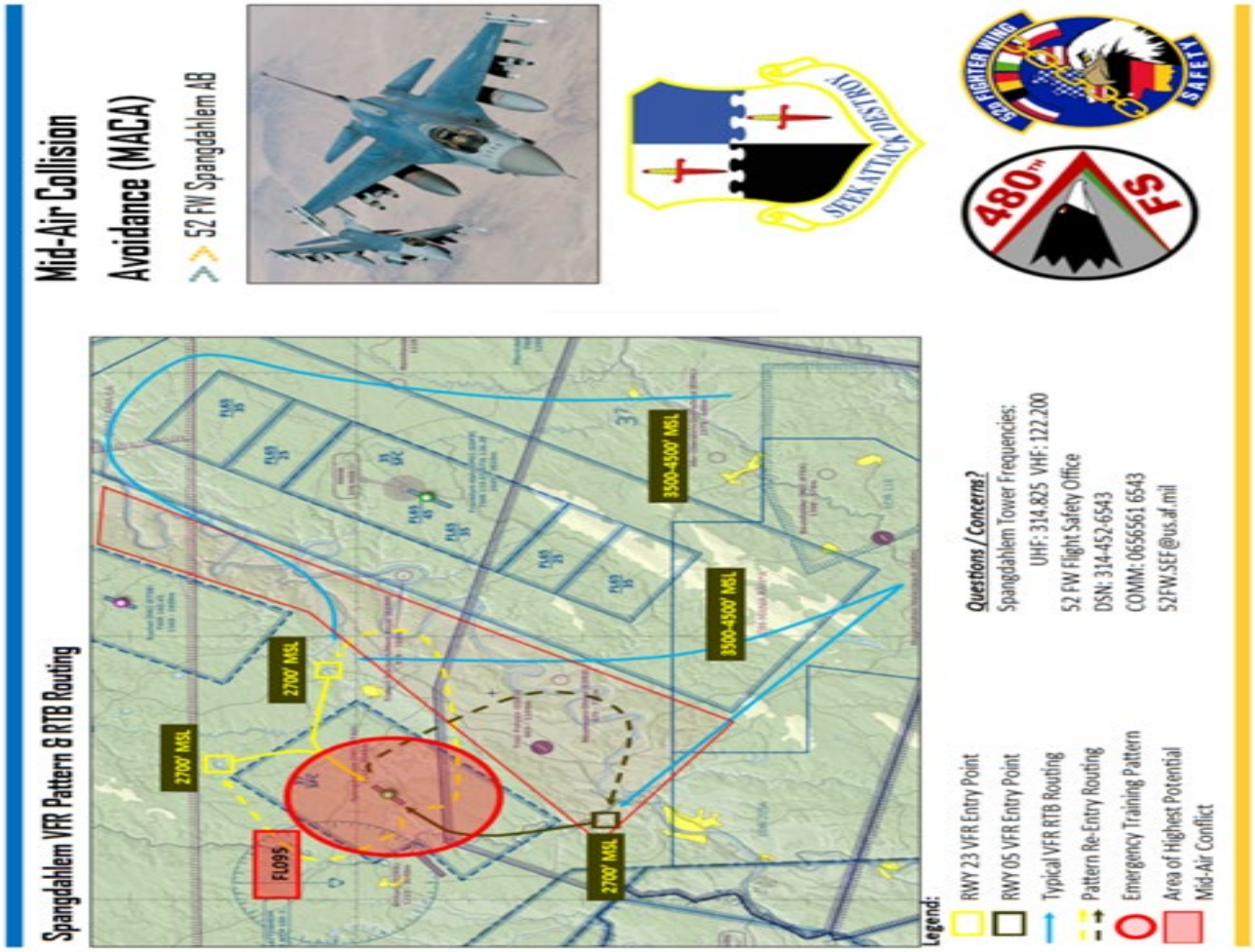


Figure A2.2. 52d FW Spangdahlem AB MACA Pamphlet, Part 2.

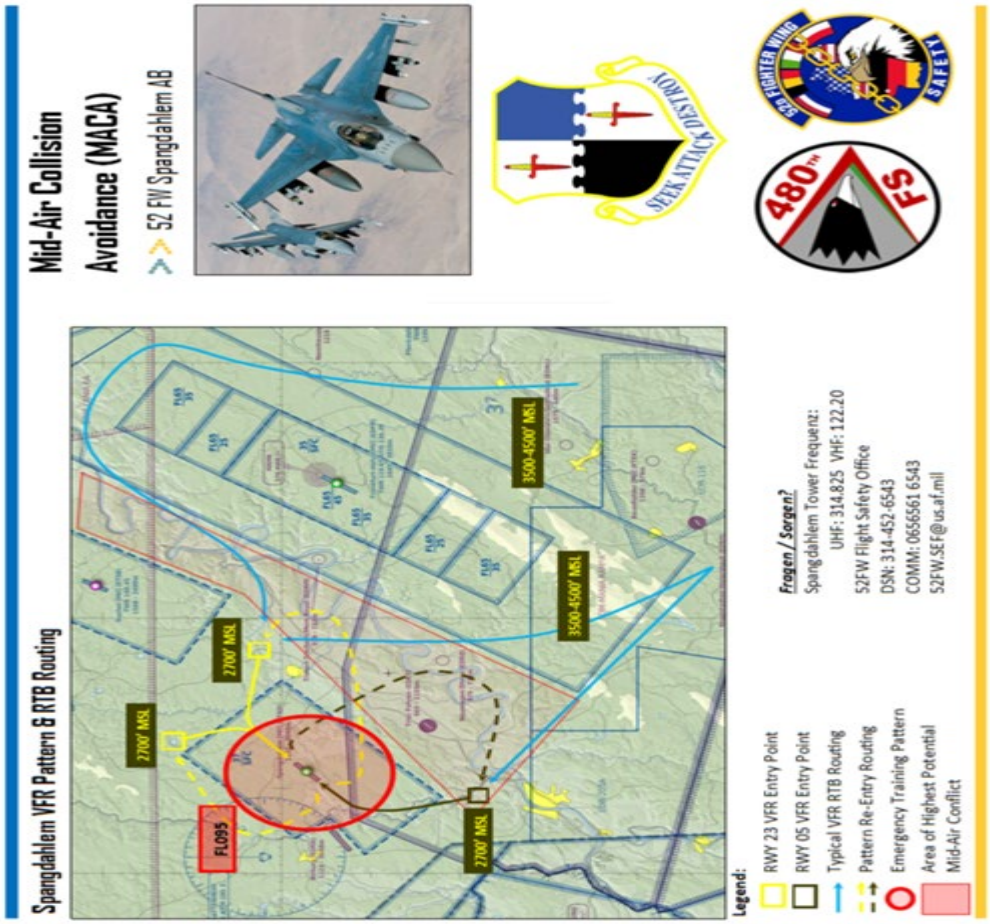
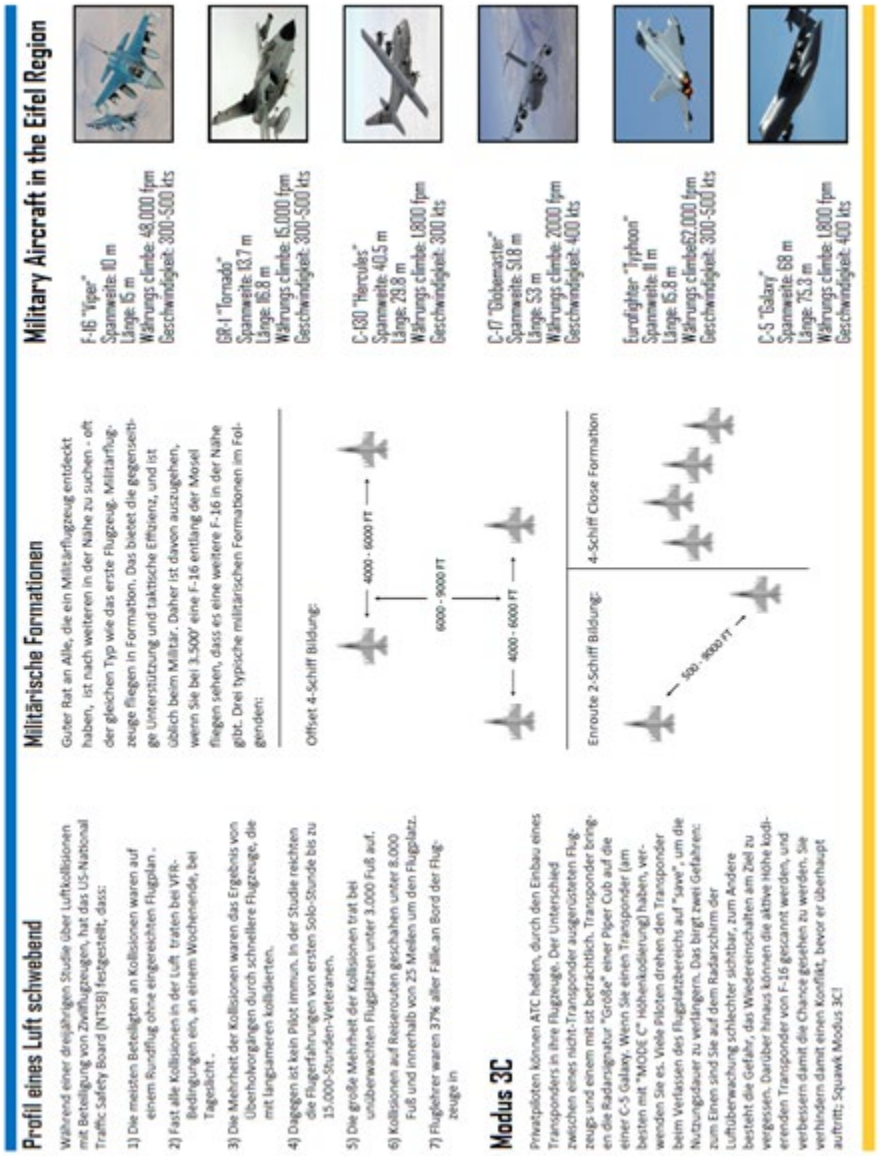


Figure A2.3. 52d FW Spangdahlem AB MACA Pamphlet, Part 3.



Profil eines Luft schwebend

Während einer dreijährigen Studie über Luftkollisionen mit Beteiligung von Zivilflugzeugen, hat das US-National Traffic Safety Board (NTSB) festgestellt, dass:

1) Die meisten Beteiligten an Kollisionen waren auf einem Rundflug ohne eingereichten Flugplan -
2) Fast alle Kollisionen in der Luft traten bei VFR-Bedingungen ein, an einem Wochenende, bei Tageslicht -
3) Die Mehrheit der Kollisionen waren das Ergebnis von Überholvorgängen durch schnellere Flugzeuge, die mit langsameren kollidierten.
4) Dagegen ist kein Pilot immun. In der Studie reichten die Flugerfahrungen von ersten Solo-Stunde bis zu 15,000-Stunden-Veteranen.
5) Die große Mehrheit der Kollisionen trat bei unüberwachten Flugplätzen unter 3,000 Fuß auf.
6) Kollisionen auf Reiserouten geschahen unter 8,000 Fuß und innerhalb von 25 Meilen um den Flugplatz.
7) Flugleiter waren 37% aller Fälle an Bord der Flugzeuge in

Modus 3C

Privatpiloten können ATC helfen, durch den Einbau eines Transponders in ihre Flugzeuge. Der Unterschied zwischen einem nicht-Transponder ausgerüsteten Flugzeugs und einem mit ist beträchtlich. Transponder bringen die Radarsignatur "Größe" einer Piper Cub auf die einer C-5 Galaxy. Wenn Sie einen Transponder (am besten mit "MODE C" Höhenkodierung) haben, verwenden Sie es. Viele Piloten drehen den Transponder beim Verlassen des Flugplatzbereichs auf "save", um die Nutzungsdauer zu verlängern. Das birgt zwei Gefahren: zum Einen sind Sie auf dem Radarschirm der Luftüberwachung schlechter sichtbar, zum Andere besteht die Gefahr, das Wiedereinschalten am Ziel zu vergessen. Darüber hinaus können die aktive Höhe kodierenden Transponder von F-16 gescannt werden, und verbessern damit die Chance gesehen zu werden. Sie verhindern damit einen Konflikt, bevor er überhaupt auftritt; Squawk Modus 3C!

Militärische Formationen

Guter Rat an Alle, die ein Militärflugzeug entdeckt haben, ist nach weiteren in der Nähe zu suchen - oft der gleichen Typ wie das erste Flugzeug. Militärflugzeuge fliegen in Formation. Das bietet die gegenseitige Unterstützung und taktische Effizienz, und ist üblich beim Militär. Daher ist davon auszugehen, wenn Sie bei 3-500' eine F-16 entlang der Mosel fliegen sehen, dass es eine weitere F-16 in der Nähe gibt. Drei typische militärischen Formationen im Folgenden:

Offset 4-Schiff Bildung:

4000 - 6000 FT

6000 - 9000 FT

4000 - 6000 FT

Enroute 2-Schiff Bildung:

500 - 9000 FT

4-Schiff Close Formation

Military Aircraft in the Eifel Region

F-16 "Fige"
Spannweite: 10 m
Länge: 15 m
Währungs climbe: 48.000 fpm
Geschwindigkeit: 300-500 kts

GR-I "Tornado"
Spannweite: 13.7 m
Länge: 16.8 m
Währungs climbe: 15.000 fpm
Geschwindigkeit: 300-500 kts

C-130 "Hercules"
Spannweite: 40.5 m
Länge: 29.8 m
Währungs climbe: 1.800 fpm
Geschwindigkeit: 300 kts

C-17 "Globemaster"
Spannweite: 51.8 m
Länge: 53 m
Währungs climbe: 2000 fpm
Geschwindigkeit: 400 kts

Eurofighter "Typhoon"
Spannweite: 11 m
Länge: 15.8 m
Währungs climbe62.000 fpm
Geschwindigkeit: 300-500 kts

C-5 "Galaxy"
Spannweite: 68 m
Länge: 75.3 m
Währungs climbe: 1.800 fpm
Geschwindigkeit: 400 kts

Attachment 3

TASKED AGENCIES AND PHONE LISTING

Table A3.1. Tasked Agencies and Phone Listing.

52d FW:		
Chief of Safety	52d FW/COS	(452-2373)
Flight Safety	52d FW/SEF	(452-6543)
Safety	52d FW/SE	(452-7233)
52 Operations Group:		
Commander	52 OG/CC	(452-6631)
Chief of Standardization and Evaluation	52 OG/OGV	(452-5977)
Director of Operations, 480th Fighter Squadron	480 FS/DO	(452-2129)
Director of Operations, Operations Support Squadron	52 OSS/DO	(452-6041)
Flight Commander, Airfield Operations	52 OSS/OSA	(452-6060)
Airfield Manager	52 OSS/OSAM	(452-6633)
Chief Controller	52 OSS/OSAT	(452-4802)
726 Air Mobility Squadron:		
Director of Operations	726 AMS/DO	(452-8900)

Attachment 4

DISTRIBUTION

Table A4.1. Distribution.

WING UNITS	NO. COPIES
52d FW/SE	1
52 OG/CC	1
52 OG/OGV	1
480 FS/DO	1
52 OSS/DO	1
52 OSS/OSA	1
52 OSS/OSAM	1
52 OSS/OSAT	1
726 AMS/DO	1