



Civil Air Patrol



Aircraft Ops & Stan/Eval

31 August 2017

Susan Parson
National Stan/Eval Officer



Civil Air Patrol Aircraft Operations



Goal:

Provide safe, effective, and efficient, standardized guidance to those who fly in CAP.





Aircraft Operations Overview

- **Who's Who**
- **Numbers – how many, how much?**
- **Trends**
- **Reminders**
- **What's Ahead**
- **Resources**



Aircraft Operations

Who's Who

- **Ron Olienyk, CAP/DO**
 - Deputy Director, Operations
- **Vacant, CAP/DOV**
 - Chief, Standardization and Evaluation
- **Capt Susan Parson, CAP/DOV**
 - Standardization & Evaluation Officer
- **Col Carlton Sumner, CAP/DOT**
 - Chief of Training / Balloon Prog. Mgr.
- **Col Jack Buschmann, CAP/DOG**
 - Glider Program Manager





Aircraft Operations Flight Academy Video





Aircraft Operations

How Many...

Status, Aircraft Upgrades & MX



- CAP Pilots
 - 9600+ Total
 - 2800+ Active Flyers
 - 1700+ Mission Pilots
- Powered Aircraft Fleet - 551
- New planes purchased
 - 2016 - 19 (17 x 182T) & (2 x T206H)
 - 2017 - 15 (9 x 182T) & (6 x 172S)
- Consolidated MX
 - 100% of wings enrolled!
 - 52 wings/550 aircraft



Aircraft Operations

How Many...

Primary Powered Aircraft Models of the CAP Fleet



Gippsland GA-8 (16)



Cessna 182 (327)



Cessna 206 (36)



Cessna 172 (172)

Cruise speed 110-135 kts
Range 520-730 NM



Aircraft Operations

How Many...

Gliders:

- **There are 46 Serviceable gliders in the fleet**
 - **29 Blanik L-23s**
 - **5 Schleicher ASK21s**
 - **1 Schweizer 2-32**
 - **11 Schweizer 2-33s**





Aircraft Operations

How Much...

1 Oct–11 Aug AF Mission Flying Hour Comparison



<u>Description</u>	<u>Previous Year</u>	<u>Current Year</u>	<u>Difference %</u>
AFROTC	126.3	481.3	281.1%
Range Support	288.1	796	176.3%
DSCA/DR	1,010.3	1598.1	58.2%
AFJROTC	443.0	677.3	52.9%
Other/HLS	5,273.6	6,139.00	16.4%
Air Defense	1,144.3	1,265.70	10.6%
SAR	1,483.2	1,594.70	7.5%
SUAS (Green Flag)	1,023.9	1,099.30	7.4%
Maintenance	7,680.7	7,691.40	0.1%
Cadet Orientation	9,141.7	9,142.80	0.0%
Route Survey	605.2	526.4	-13.0%
Training	31,931.0	25,809.10	-19.2%
Drug Interdiction	6,980.1	4,634.30	-33.6%
Total AFAM Flying	67,131.4	61,455.40	-8.5%

Liaison Flying	2,024.9	1,696.8	-16.2%
Corporate Flying	19,515.0	20,730.0	6.2%
Grand Total Flying	88,671.3	83,882.2	-5.4%

The flying hour comparison is directly affected by budget constraints.



Aircraft Operations

How Much...

Glider Program

- **Status**

- Number of CAP Gliders: 46 flying & 10 (Requiring Repairs/In Storage)
- Utilization: approx 200 launches/glider (annually)

- **CAP Glider Guidance**

- CAPM 60-1G (Glider Program Procedures)
- Located “Aircraft Ops/CAP Pilots” webpage



	FY16	FY17
Glider Flights (Sorties)*	8,593	5,267

*1 October 2016– 11 August 2017 data



Aircraft Operations

How Much...

Green Flag (Surrogate Predator Ops)

- **Locations**
 - **GF East: Barksdale AFB, LA**
 - **GF West: Nellis AFB, NV**
- **Always looking for aircrew**
- **Now directly under Wings (LA / NV)**
 - **Standardized structures and Ops**
 - **Enhanced interoperability between GF East & West**
- **CAP Chief of Special Missions (Joe Piccotti)**
 - **Supports GF and other high interest programs**





Aircraft Operations Trends

Flight Evaluations: 1435

Failures: 39

Failure Rate: 3%

Category:	Total Failures:
Instrument Approach Procedures	7
Steep Turns	6
Normal Approaches and Landings	6
Use of Checklist	5
Power-On Stalls	5
Maneuvering During Slow Flight	5
Precision Approach	5
Non-Precision Approach	5
Aircraft Systems	4
Surface and Traffic Pattern Operations	4
Normal Takeoff & Climb	4
Power-Off Stalls	3

Category:	Total Failures:
Instrument Approach Procedures	7
Precision Approach	5
Non-Precision Approach	5
Normal Approaches and Landings	6
Normal Takeoff & Climb	4
Maneuvering During Slow Flight	5
Power-On Stalls	5
Power-On Stalls	5
Use of Checklist	5
Surface and Traffic Pattern Operations	4



Aircraft Operations Trends

Flight Evaluations: 1435

Failures: 39

Failure Rate: 3%

https://missions.caphq.gov/trend_analysis/index.cfm

Category:	Total Failures:
Recovery from Unusual Flight Attitudes	2
Engine Failure/Takeoff Below VMC	2
Go-around	2
Short-field Approach & Landing	2

Category:	Total Failures:
Annual Online Written Exam	1
Taxiing	1
Radio Comm & ATC Light Signals	1
Crosswind Takeoff & Climb	1
Short-field Takeoff & Climb	1
Soft-field Takeoff & Climb	1
Radio Navigation	1
Constant Airspeed Descents	1
Radio Nav & Radar Services	1
S - Turns	1
Turns Around A Point	1
System & Equipment Malfunction	1
POH Bold Face Knowledge	1
X-wind Approaches and Landings	1
Soft-field Approach & Landing	1
Clearing Turns and Collision Avoidance	1
Vigilance, Risk Management & Judgement	1
Intercept & Tracking of Courses	1
Circling & Missed Approach	1
Use of Crew Resource Management	1
Demonstrate teaching maneuvers in flight	1
Demonstrate evaluating maneuvers in flight	1
Demonstrate syllabus maneuvers/items	1



Aircraft Operations Reminders

CAPF 5 Pilot Flight Evaluations:

- Measured using **FAA & CAP standards**
- **Enhance Safety** through Compliance
- Provides **Trend Data**

CAP PILOT FLIGHT EVALUATION			
<input type="checkbox"/> ANNUAL	<input type="checkbox"/> ABBREVIATED	DATE OF CHECK:	
MEMBER'S NAME (print or type)	CADP	CHARTER NO.	ORGANIZATION
ADDITIONAL CAP ENDORSEMENTS (Endorsements cannot be pre-processed) (check)		AIRCRAFT MAKE & MODEL	
<input type="checkbox"/> G1000	<input type="checkbox"/> Operations Pilot	<input type="checkbox"/> Instrument Pilot	<input type="checkbox"/> Comm
<input type="checkbox"/> Minimum Flight	<input type="checkbox"/> Instrument Desc	<input type="checkbox"/> Check Pilot	<input type="checkbox"/> Instrument
<input type="checkbox"/> Turbo Aircraft			<input type="checkbox"/> CFII
			<input type="checkbox"/> CFII
I. GROUND REVISION	S U V W	VIII. INSTRUMENT REF MANUEVERS	S U V W
A. Annual Online Written Exam	<input type="checkbox"/>	A. Straight & Level Flight	<input type="checkbox"/>
B. Review CAPF 60-1 & Supplements	<input type="checkbox"/>	B. Counter Airspeed Climb	<input type="checkbox"/>
C. Review Flight Release Procedures	<input type="checkbox"/>	C. Counter Airspeed Descent	<input type="checkbox"/>
D. Review CAPF 9 Requirements	<input type="checkbox"/>	D. Turns To A Heading	<input type="checkbox"/>
E. Local Procedures	<input type="checkbox"/>	E. Recovery from Unusual TV Attitudes	<input type="checkbox"/>
F. Emergency Procedures	<input type="checkbox"/>	F. Radio Nav & Radio Services	<input type="checkbox"/>
G. Electronic Flight Book (EFB)	<input type="checkbox"/>		
II. PRE-FLIGHT PREPARATION	S U V W	IX. INSTRUMENT FLIGHT PROCEDURES	S U V W
A. Certificates & Documents	<input type="checkbox"/>	A. Ground Prop (VX, AC systems, TH Plan)	<input type="checkbox"/>
B. Obtaining Weather Information	<input type="checkbox"/>	B. ATC Clearance and Traffic Procedures	<input type="checkbox"/>
C. Determine Weight & Balance	<input type="checkbox"/>	C. Holding Procedures	<input type="checkbox"/>
D. Determine Takeoff Performance	<input type="checkbox"/>	D. Partial Panel Unusual Attitude Recovery	<input type="checkbox"/>
E. Determine Cruise Performance	<input type="checkbox"/>	E. Intercept & Tracking of Courses	<input type="checkbox"/>
F. Determine Landing Performance	<input type="checkbox"/>	F. Instrument Approach Procedures	<input type="checkbox"/>
G. Cross-country Flight Planning	<input type="checkbox"/>	(1) Precision Approach	<input type="checkbox"/>
H. Aircraft Systems	<input type="checkbox"/>	(2) Non-Precision Approach	<input type="checkbox"/>
I. Aeromedical Factors	<input type="checkbox"/>	(3) Partial Panel Approach	<input type="checkbox"/>
		(4) Circling & Missed Approach	<input type="checkbox"/>
III. GROUND OPERATIONS	S U V W	X. GROUND REFERENCE MANUEVERS	S U V W
A. Visual Inspection	<input type="checkbox"/>	A. Rectangular Course	<input type="checkbox"/>
B. Starting Engines	<input type="checkbox"/>	B. S-Turn	<input type="checkbox"/>
C. Taxiing	<input type="checkbox"/>	C. Turns Around A Point	<input type="checkbox"/>
D. Use of Checklist (mandatory)	<input type="checkbox"/>		
E. Passenger & Crew Briefing	<input type="checkbox"/>	XI. NIGHT FLIGHT OPERATIONS	S U V W
F. Smoke Cockpit Procedures	<input type="checkbox"/>	E. Physiological aspects of night flying	<input type="checkbox"/>
G. Post-flight Procedures	<input type="checkbox"/>	F. Preparation & Personal Equipment	<input type="checkbox"/>
		G. Aircraft & Airport Lighting	<input type="checkbox"/>
IV. AIRPORT & TRAFFIC PATTERN OPS	S U V W	D. Night Orientation and Navigation	<input type="checkbox"/>
A. Radio Comm & ATC Light Signals	<input type="checkbox"/>	XII. EMERGENCY PROCEDURES	S U V W
B. Surface and Traffic Pattern Operations	<input type="checkbox"/>	A. Emergency Approach & Landing (sim)	<input type="checkbox"/>
C. Airport & Runway Markings & Lighting	<input type="checkbox"/>	B. Systems & Equipment Malfunction	<input type="checkbox"/>
		C. IFR Hold Area Knowledge	<input type="checkbox"/>
V. TAKEOFF & CLIMBS	S U V W	D. Emergency Descent	<input type="checkbox"/>
A. Nominal Takeoff & Climb	<input type="checkbox"/>	XIII. APPROACHES & LANDINGS	S U V W
B. Crosswind Takeoff & Climb	<input type="checkbox"/>	A. Nominal Approaches and Landings	<input type="checkbox"/>
C. Soft-field Takeoff & Climb	<input type="checkbox"/>	B. Crosswind Approaches and Landings	<input type="checkbox"/>
VI. CROSS-COUNTRY FLYING	S U V W	C. Forward Signs to Landing	<input type="checkbox"/>
A. Pilotsage & Descent Reckoning	<input type="checkbox"/>	D. Go-around	<input type="checkbox"/>
B. Radio Navigation	<input type="checkbox"/>	E. Short-field Approach & Landing	<input type="checkbox"/>
C. Diversions	<input type="checkbox"/>	F. Soft-field Approach & Landing	<input type="checkbox"/>
D. Lost Procedures	<input type="checkbox"/>	XIV. SAFETY AWARENESS	S U V W
VII. MANUEVERS	S U V W	A. Crossing Turns and Collision Avoidance	<input type="checkbox"/>
A. Power-Off Stalls	<input type="checkbox"/>	B. Vigilance, Risk Mgt & Judgment	<input type="checkbox"/>
B. Power-On Stalls	<input type="checkbox"/>	C. Fuel Management	<input type="checkbox"/>
C. Maneuvering During Slow Flight	<input type="checkbox"/>	D. Use of Crew Resource Management	<input type="checkbox"/>
D. Steep Turns	<input type="checkbox"/>	E. Ground Handling Procedures	<input type="checkbox"/>
		F. Use of Risk Management (Go-No-Go)	<input type="checkbox"/>

CAP FORM 5, Mar 13 Previous Editions Will Not Be Used OFF-ROUTING DOV. Continue on Next Page

Purpose of **Ground Eval** Portion

- Assess pilot's knowledge of rules, documentation, local ops & emergency procedures.

Purpose of **Flight Eval** Portion

- Assess pilot's ability to perform specific flight maneuvers and fly the aircraft safely.



Aircraft Operations Reminders

- **Wing Supplements to CAPR 60-1 on Web**
 - **All supps to previous CAPR 60-1 expire within 6 months**
 - **Must be revised & re-approved IAW CAPR 60-1**
 - **Submit for approval as MS Word document via E-mail**
 - **Coordinate IAW CAPR 60-1:**
 - **CAP Region, CAP-USAF/LR, CAP-USAF/DO prior to NHQ**
 - **Supps must not conflict with HHQ directives**
 - **Supps must not be less restrictive than the parent reg.**
 - **Supps may provide additional requirements or clarification to the parent regulation**

NATIONAL HEADQUARTERS CIVIL AIR PATROL
CAP REGULATION 60-1
1 MAY 2014
INCLUDES CHANGE 1, 10 DECEMBER 2014
OPERATIONS
CAP FLIGHT MANAGEMENT

This regulation prescribes the responsibilities of all Civil Air Patrol (CAP) personnel as applicable to the control and management of CAP flight programs, aircraft, and aircraft personnel. It includes the minimum flight requirements for all CAP pilots and crewmembers. Federal Aviation Administration (FAA) requirements are minimum standards. However, in some instances CAP has established higher standards than FAA minimums. The practices, procedures and methods prescribed in this regulation are mandatory.

Flight CAP aircraft is a privilege, not a right of membership. All members have the responsibility for flying safely and compliance with this regulation.

SUMMARY OF CHANGES
Changes from previous version information. Redline ground handling training requirements. Removes the requirement for the pilot to consent to release of operational data before an emergency over the flight site. Clarifies Air Force approval process for proficiency flight permits. Adds a note that CAP's initial maintenance requirements. Note: Shaded areas identify new or revised material.

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Supersedes: CAPR 60-1, 9 April 2014
Distribution: Unlimited CAP members
Version: CAPR 60-1, 9 April 2014
Page: 21

Note: CAP publications and files are available digitally on the National CAP website at http://www.civillairpatrol.com/files_publications_publications



Aircraft Operations Reminders

Documentation: receipts & reimbursement CAP Form 108s:

- Upload the actual receipt within one day of purchase.
- Ensure all info is included on the receipt for processing.
- Circling key Info helps!!! (Date, Tail #, Gallons, & Fuel \$)

Required on Receipt:

- Vender
- Tail #
- Date
- Gals Fuel
- \$ Fuel

05/10/2014 11:08:24
183 [Redacted] Senticoff
EPIC AVIATION
EPICard Sale
Stafford Regional Airport Auth
only
96 Aviation Way,
Fredericksburg, VA - 22406-450
5
540-288-3838
Merchant #: 15644 Batch: 1885
Terminal ID: 10050028619 Invoice: 117704
Operator ID: BR
Customer Name: [Redacted] WING CAP
Card #: [Redacted] 0003 - Swiped
Tail #: N638CP Flight #: [Redacted]
Avgas 100
10.00 @ \$5.50000/Gallon \$ 104.50
MiscTax-Avgas \$ 0.11
StateTax-Avgas \$ 0.95
FET-Avgas \$ 3.69
Fuel Total \$ 109.25
Invoice Total US\$ 109.25
Approved : 102358
Did you receive the correct grade of fuel?
Avgas 100
Y/N [Redacted]
Customer Copy



Aircraft Operations Reminders

Correct CAPF 108 Receipt

Required on Receipt:

- Vender
- Tail #
- Date
- Gals Fuel
- \$ Fuel

City of Concord
 Concord Regional Airport
 9000 Aviation Blvd NW
 Concord, NC 28027
 704-920-5900
 704-920-5930 -Aviation Accounting 704-795-2371 -Aviation Fax

Invoice: **Date** → 5/08/2014 4.12PM

Sold To: TRANSIENT SALE Ship To: TRANSIENT SALE

Tail # ↓ **Gallons** ↓

Line#	Type	Item/Description	Cr?	Aircraft	Quantity	Units	List Price	Disc	Unit Price	Extended
1	Fuel	*AVGAS		N716CP	14.0	Gallon	5.43		5.43	76.02
		AVGAS								
		Fuel Ticket #:								
		Fuel FET Tax:	2.72							76.02
		Fed Oil Spill Tax:	0.03							5.32
		NC Pollution Tax:	0.03							2.78
										84.12
										84.12
	MasterCard	Swiped							84.12	
		Auth#:								
		I Agree to pay the Amount shown to the right \$ 84.12 in accordance with the Card Issuer agreement.								
		Signed: _____								
		Terms: Due Upon Receipt								

14-T- [REDACTED] A006
 Hobbs 1.6

Fuel \$ ↑



Aircraft Operations

What's Ahead

Possible New Missions?

- **Sundown or boat patrols for lakes & ocean shorelines for cities & counties**
- **Animal surveys & wildlife tracking for states & universities**
- **More fire patrol missions for states or military**
- **Traffic monitoring missions for states**
- **Low level route surveys for military bases**
- **Remotely Piloted Aircraft (RPA) Escort missions**
- **GIIEP/DAART missions with the National Guard**
- **Pilots N Paws (Transporting Pets in emergencies-gov't req.)**
- **Project Lifesaver (Locates lost or wondering persons with Alzheimer's Disease, Autism, Downs Syndrome, etc.)**



CAPR 70-1

CAP Flight Management

Overview

- Substantially revised from previous CAPR 60-1
- States the responsibilities of all CAP personnel with respect to the control and management of CAP aircrews, aircraft, and flying programs

NATIONAL HEADQUARTERS CIVIL AIR PATROL
 CAP REGULATION 70-1
 8 May 2017
 OPERATIONS
 CAP FLIGHT MANAGEMENT



SUMMARY OF CHANGES

This document has been extensively revised and needs to be reviewed in its entirety.

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1. Overview. This regulation states the responsibilities of all Civil Air Patrol (CAP) personnel with respect to the control and management of CAP aircrews, aircraft, and flying programs.

2. Applicability. This regulation applies to all CAP aircrews and all CAP aircraft as defined in this regulation. This regulation does not apply to CAP corporate aircraft flown by CAP-USAF personnel, aircraft released to an approved fixed base operator (FBO) or aircraft maintenance facility, or other non-CAP member use approved by the CAP-USAF Director of Operations (CAP-USAF/DO). All CAP personnel involved in CAP flight activities must comply fully with the requirements of 14 CFR, as well as with the additional CAP-specific standards stated in this regulation. All CAP members must understand that flying CAP aircraft is a privilege, not a right of membership. Commanders have overall responsibility for compliance with these procedures, which are applicable to all CAP units.

Supersedes: CAPR 60-1, 03-May-2014
 Distribution: National CAP website

OPR: CAP/DO
 Pages: 39

Notice: CAP publications and forms are available digitally on the National CAP website at:
http://www.capmembers.com/forms_publications_regulations/



CAPR 70-1

CAP Flight Management

Applicability

- Applies to all CAP aircrews and all CAP aircraft as defined in CAPR 70-1
- All CAP personnel involved in CAP flight activities must comply fully with the requirements of 14 CFR, as well as with the additional CAP-specific standards
- ***All CAP members must understand that flying CAP aircraft is a privilege, not a right of membership.***





CAPR 70-1: CAP Flight Management

Table of Contents

General Info: CAP's version of 14 CFR part 1

Info specific to CAP operating environment

CAP pilot certification requirements & procedures: CAP version of 14 CFR part 61

CAP operating rules: CAP version of 14 CFR part 91

1. Overview
2. Applicability
3. **Operating Instructions (OI), Pamphlets, Supplements and Waivers to this Regulation**
4. **Qualification: CAP Pilots, Instructors, Check Pilots**
5. **Qualification: Aircraft Types**
6. **CAP Pilot Training, Proficiency, and Orientation Flights**
7. **CAP Pilot Flight Evaluation**
8. **Suspension of CAP Flying Privileges, Appeals, Reinstatement, and Damages**
9. **CAP General Operating and Flight Rules**

Attachment 1
COMPLIANCE ELEMENTS

Attachment 2
GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

Attachment 3
INSTRUCTIONS FOR CAP PILOT FLIGHT EVALUATIONS – AIRPLANE/GLIDER



Aircraft Operations

FAA Resources

- Airman Testing Web Page
 - http://www.faa.gov/training_testing/testing/
 - http://www.faa.gov/training_testing/testing/acs/
- FAASafety.gov – ALC-449*
 - www.faasafety.gov
- ACS Focus Team
 - 9-AVS-ACS-Focus-Team@FAA.gov
- Safety Alert for Operators – 17009
 - https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/safo/all_safos/



Aircraft Operations

CAP Resources

- Website: “Aircraft Operations & Stan/Eval”

Access at: www.capmembers.com

Stan/Eval Information

Pilot & Flight Training information

FAA sites, AOPA courses, weather, & more!

- WMIRS (Web Mission Information Reporting System)
Standardized Sortie Generation & Flight Release
- Ops Qual
Real-time qualification data



Aircraft Operations

Other Resources

Aviators Model Code of Conduct (AMCC)

- Developed by a team of aviation professionals and drawing upon decades of research and experience, the Code recommends operating practices to enhance the quality and safety of your flight operations.
- Pilot conduct impacts the entire aviation community, including its safety culture. A code of conduct can help achieve new levels of proficiency.
- **Located on the CAP Pilots web page:**
 - Aviators Model Code of Conduct (PDF)
 - Flight Instructors Code of Conduct (PDF)
 - Glider Aviators Code of Conduct (PDF)
 - Seaplane Pilots Code of Conduct (PDF)
 - Aviators Model Code of Conduct (website)
 - Passenger Briefing Materials (AMCC)





Aircraft Operations

Questions?
Feedback?