

FLIGHT TRAINING GUIDE

CHAPTER 6



FLIGHT REVIEW GUIDE

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CHAPTER 6

FLIGHT REVIEW GUIDE

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ROBINSON HELICOPTER COMPANY'S**FLIGHT REVIEW GUIDE****For the Robinson R22, R44, and R66****PURPOSE**

This guide is intended to be used by flight instructors to assist in conducting an effective flight review in accordance with U.S. regulatory requirements (reference 14 CFR § 61.56 and SFAR 73 as appropriate), Pilots' Operating Handbook requirements, and factory recommendations. Flight reviews conducted outside the US should be adjusted, as appropriate, to meet foreign agency review requirements. Both the flight instructor and pilot should understand that the flight review is not a test or checkride but rather recurrent training in which knowledge and proficiency are being evaluated and weak areas can be brought up to appropriate standards. This guide also provides tools that can be used by the flight instructor and pilot to develop a plan for a personal weather minimum, currency and proficiency program.

STRUCTURE

14 CFR § 61.56 states the flight review must consist of a minimum of one hour of ground instruction, which must include a review of the general operating rules of 14 CFR part 91, and one hour of flight instruction. It also states the flight maneuvers are determined by the flight instructor administering the review. In many instances, especially for pilots that do not fly on a regular basis, these times will not be adequate to properly evaluate a pilot's knowledge and proficiency and bring weak areas up to appropriate standards. Pilots and flight instructors should focus on conducting a beneficial and worthwhile review rather than on completing in the minimum time.

The guide is divided into three parts:

PART 1
A pre-review checklist for the instructor conducting the flight review.
PART 2
A guide for the conduct of both the flight and ground portion.
PART 3
A plan to develop a personal weather minimum, currency and proficiency program.

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PART 1
FLIGHT INSTRUCTOR'S PRE-REVIEW CHECKLIST

This checklist can be used by the instructor to gather preliminary pilot information to be used to construct his/her plan for the flight review. It should be completed by a discussion between the instructor and the pilot.

Name _____
Contact info. Phone _____ Email _____
Pilot certificates held _____
Ratings held _____

Total experience:

Total flight hours _____ Total helicopter hours _____
Helicopter hours last six months _____
Average helicopter hours/month _____
Time since last flight review: _____ months/_____ flight hours

R22, R44 or R66 experience as appropriate:

Total time _____
Last six months _____
Average hours/month _____

Type of flying (circle as appropriate):

Pleasure
Business
Local
Cross Country
Night

Personal skills assessment by pilot:

Strengths as a pilot _____
Areas for improvement _____
Aviation goals _____

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PART 2 FLIGHT REVIEW GUIDE

The Flight Review Guide is intended to act as a plan for the instructor to use to conduct a thorough flight review. Instructors should tailor the guide based on individual pilot experience, flight activities and location of the review.

GROUND REVIEW:

Regulatory Review – 14 CFR part 91:

Subpart A – General

- 91.3 Pilot in command
- 91.13 careless/reckless operation
- 91.15 Dropping Objects
- 91.17 Alcohol or drugs

Subpart B – Flight Rules, General

- 91.103 Preflight action
- 91.107 Use of safety belts
- 91.111 Operator near other aircraft
- 91.113 Right of way rules
- 91.119 Minimum safe altitudes
- 91.123 Compliance with ATC
- 91.127–91.131 Airspace requirements
- 91.133 Restricted/prohibited areas
- 91.137 TFR disaster/hazard areas
- 91.141 TFR presidential
- 91.145 Operations around sporting events

Subpart B – Flight Rules, VFR

- 91.151 Fuel requirements
- 91.155/157 VFR/SVFR wx mins
- 91.159 VFR cruising altitude

Subpart C – Equipment

- 91.203 Aircraft certification req
- 91.205 Instrument/equipment req
- 91.209 Aircraft lights
- 91.213 Inoperative equipment
- 91.225 ADS-B equipment

Subpart E – Maintenance

- 91.405 Maintenance requirements
- 91.407 Operation after maintenance
- 91.409 Inspections
- 91.413 Transponder inspection
- 91.417 Maintenance records

Pilot's Operating Handbook:

- Limitations
- Emergency Procedures
- Normal Procedures
- Performance

PART 2 FLIGHT REVIEW GUIDE (cont'd)

GROUND REVIEW (cont'd)

Proper Preflight Planning:

- Weight & balance
- Route selection
- Weather collection
- Performance planning (hot/high/loading)
- Risk assessment
- Elements of a good passenger briefing (SN 44)

Special Emphasis Areas/Safety Tips & Safety Notices:

- Use of carburetor heat (R22/R44 I, SN 25)
- Avoiding hot starts (R66)
 - Causes of hot starts
 - Recognition
 - Corrective actions
- Distractions in flight (SNs 16, 34, 36, 41, & 44)
- Low RPM rotor stall (SNs 10 & 24)
- Low G/Mast Bumping (SNs 11, 20, 29 & 31)
 - Cause and avoidance
 - Recognition and recovery
 - Turbulence (SN 32)
- Loss of visual reference (SNs 18, 19, & 26)
- Vortex ring state (SNs 22 & 34)
 - Causes and recognition
 - Vuichard/traditional recovery
- Dynamic Rollover (Ref SN 9)

PART 2

FLIGHT REVIEW GUIDE (cont'd)

The appropriate Practical Test Standard/Airman Certification Standard (PTS/ACS) or foreign agency equivalent will be used to determine satisfactory flight proficiency. Specific maneuver techniques are located in the R22, R44 or R66 Maneuver Guide.

FLIGHT REVIEW:

- Engine starting/run-up
- Hovering maneuvers

Takeoffs:

- To a hover
- Normal takeoff
- Maximum performance takeoff

Landings:

- From a hover
- Slope landing
- Running landing
- Hydraulic off landing (R44/R66, optional)

- Vortex ring state recovery – Vuichard/traditional
- Engine shutdown

Low RPM recovery (R22/R44):

- Recognition
- Recovery

Approaches:

- Normal approach
- Steep approach
- Shallow approach
- GOV off (R22/R44)

Autorotations:

- Straight-in
- 180° Autorotation
- Hovering Autorotation
- Simulated engine failure (forced landing)

Endorsement templates are found at the end of Chapter 1 of this guide. It is the instructor's responsibility to insure satisfactory knowledge and proficiency prior to issuing the endorsement.

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**PART 3
PERSONAL WEATHER MINIMUMS &
PILOT CURRENCY/PROFICIENCY PLAN**

Personal Weather Minimums:

One of the most useful things a pilot can do in aviation risk management is to develop, write down, and adhere to a set of personal weather minimums.

These minimums should be determined by the pilot, with the aid of an instructor, taking into account the pilot’s experience, local weather patterns and terrain.

A study by the US Helicopter Safety Team found that 65% of helicopter fatal accidents due to flight into inadvertent IMC occurred at night. A pilot’s need for night flight and the importance of night proficiency should be thoroughly discussed and, if a need to fly at night is determined, increased weather minimums should be selected.

Day:

Local Flights

Ceiling _____ feet
 Visibility _____ miles
 Wind _____ kts
 Gust spread _____ kts

X-C flights

Ceiling _____ feet
 Visibility _____ miles

Night:

Local Flights

Currency ____ night hours every __ days
 Ceiling _____ feet
 Visibility _____ miles
 Wind _____ kts
 Gust spread _____ kts

X-C flights

Ceiling _____ feet
 Visibility _____ miles

Pilot Currency/Proficiency Plan:

Pilot proficiency is a “use it” or “lose it” skill. Pilots, especially new or lower time pilots, should develop personal aeronautical goals to maintain their knowledge and proficiency. A realistic plan, developed with the assistance of an instructor, should take into account the pilot’s typical flight activities, experience level and goals.

1. A dual flight every _____ months (recommended at least every 4-6 months)
2. Number of flights per month _____ or number or hours per month _____
3. Number of night flights per month _____ or number of night hours per month _____
4. Number of hours per year _____
5. Number of X-C flights (more than 50 nm) per year _____
6. Attend _____ safety seminars per year
7. Review Pilot's Operating Handbook (POH) every _____ weeks (~ every 4-6 weeks)

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