King Schools Online
Internet Learning Programs

INTRODUCTION TO RADAR

SYLLABUS

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Introduction to Radar Course
Pilot Training Syllabus

INTRODUCTION
The King Schools Online *Introduction to Radar* Course is for the pilot who wants a clear understanding of the practical use of radar for weather avoidance. It will give you easy-to-remember techniques for effective operation of your radar in each phase of flight.

This course:

- Is suitable for initial or recurrent training
- Provides learning through individual Internet study
- Provides a graduation certificate

COURSE ELEMENTS AND STRUCTURE
The King Schools Online *Introduction to Radar* Course contains five major subject areas (Labs) with one or more Lessons per Lab. Following each Lesson's study materials, the pilot sees a quiz containing multiple-choice and/or True/False questions. There are approximately 25 questions in the course. Most pilots will require approximately 45 minutes to complete this course.

COMPLETION STANDARDS
Lesson completion requires accessing each lesson page of study materials and correctly answering all questions in the quiz associated with that Lesson. An individual Lab is finished after completing all of the Lessons contained in that Lab. Pilots complete the course when all the Labs are checked off with a completion date on the course main menu.

CERTIFICATE OF COMPLETION
A Completion Certificate individualized for the pilot enrolled in the course may be accessed at the "Print Your Course Complete Materials and Endorsement" icon/link on the main menu after the entire course has been completed. Pilots clicking the "Print Your Course Complete Materials and Endorsement" icon/link before the coursehas been completed receive a message saying that the certificate will be available after the entire course is completed.

ENROLLMENT PROCEDURES
A pilot may individually order and enroll in the course, or flight departments may order multiple courses and receive a "key" for each course ordered. The flight department then assigns a key to each pilot requiring training. Each pilot registers individually at *https://ilearn.kingschools.com* for the course.

COURSE STUDY
The pilot first enrolls in the course, and then logs in to access the course Labs and Lessons. If the pilot has insufficient time to complete the course in one session, the pilot may log out. The program records all Lesson and Lab completions and every question answered. When returning to the course, the pilot may resume at the last point of progress.

LAB 1

UNDERSTANDING YOUR THUNDERSTORM AVOIDANCE OPTIONS

LESSON

1 Tools You Can Use for Thunderstorm Avoidance

Lesson Objective: To become aware of the various tools for thunderstorm avoidance, for both pre-flight and en route, and the advantages and disadvantages of each.

2 How Airborne Weather Radar Works

Lesson Objective: To learn the principles on which airborne radar works, including the relationship of antenna size to beam height and width. Also, to understand which precipitation types display well and how precipitation intensities are shown.

LAB 2

USING THE CONTROLS ON YOUR RADAR

LESSON

1 Using the Range Control to Gain Information

Lesson Objective: To learn how to use different range settings to display and avoid precipitation.

2 Using the Tilt Control to Look for Danger

Lesson Objective: To learn how tilting the radar antenna affects the display of precipitation, and to understand the significance of seeing ground clutter on the display.

3 Seeing Even More With the Vertical Profile Mode

Lesson Objective: To learn how the Vertical Profile mode found on some radars can help distinguish between weather and terrain.

LAB 3

WHEN THE WEATHER IS REALLY BAD

LESSON

1 Avoiding the Attenuation Trap

Lesson Objective: To understand the significance of an area where you see both no radar returns and no ground clutter.

2 Thunderstorm Avoidance Do's and Don'ts

Lesson Objective: To summarize the recommended procedures for avoiding thunderstorms.

LAB 4

SAFE GROUND OPERATIONS

LESSON

1 Precautions During Ground Operation

Lesson Objective: To learn the dangers involved with operating weather radar on the ground, and how to eliminate them.

2 Using the Mode Selector

Lesson Objective: To learn when to use the different operating modes of a weather radar, and to understand when the radar will be actively transmitting.

LAB 5

UNDERSTANDING YOUR RADOME

LESSON

1 The Care and Feeding of Your Radome

Lesson Objective: To learn how the condition of the radome affects the signals from the weather radar, and to recognize when a radome is in poor condition.