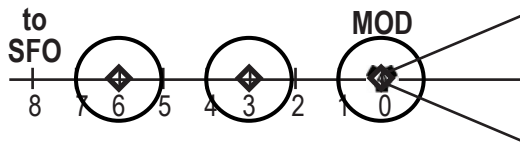


Your Goal



Line up the planes at MOD using route or speed change so that:

- the planes are 3 nautical miles apart
- the last plane arrives as soon as possible
- before MOD, the planes are never closer than 2 miles.

What can you do with the Simulator?

In the Simulator you can:

- Choose and Solve a NASA problem
- Replay your solution
- Create your own problem

When you first open the Simulator, you are ready to solve Problem 2-1, the simplest 2-plane problem

October 25, 2006



Solve a Problem

You can select and solve a problem from about 40 existing NASA problems.

Or you can solve problems that you create.



Review your Solution

You can playback your solution to any problem that you are currently working on.



Create a Problem

You can create your own problems.

To save problems that you create, you must use the "SAVE" version of the simulator.

1 How to Select a Problem

Select Problem < Click to access menus

- 2 planes >
- 3 planes >
- 4 planes >
- 5 planes >

< Select number of planes

- Problem 5-1
- Problem 5-2
- Problem 5-3
- Problem 5-4
- Problem 5-5
- Problem 5-5
- Problem 5-7
- Problem 5-8

< Select specific problem

2 How to Run the Problem

▶ | ⏸ | ⏩ | ⏪ | Review | Reset

Normal Speed | Pause | 4 times speed | 10 times speed | Reset

4 How to Change Plane Route or Speed

You can change a plane's route or speed to change the spacing of planes. You can change a plane's route or speed while the problem is running or paused.

Plane's datatag

SWA23 ▾ ← Callsign

600 kts ▾ ← Speed in knots

30 35

- > Use the plane's datatag to make the changes.
- > Click and drag to move the datatag

View a plane's planned route

- > Click the plane's call sign to see the route menu
- > Click Show Route
- (If the simulator is Paused, the route will also show markers for where the plane will be in 1, 2, and 3 minutes)

Change a plane's route

- > Click the plane's call sign to see the route menu
- > Click the new route
- (The route will be highlighted for 15 seconds.)

Change a plane's speed

- > Click the plane's speed to see the speed menu
- > Click the new speed
- (If the simulator is Paused, the new speed will not show until the simulator is running.)

LineUp With Math™ Simulator
Solving NASA Problem 3-6

Smart Skies™ NASA

Clock
Running Time: 00:15
Time for Best Solution: Target 3:36

Cloud
Route is Closed

1
Problem
Solve a Problem
Problem name
Click to select a new problem
Click to create your own problem

2
Run The Problem
Normal speed
Pause
4 times normal speed
10 times normal Speed
Replay your solution
Reset problem to starting conditions

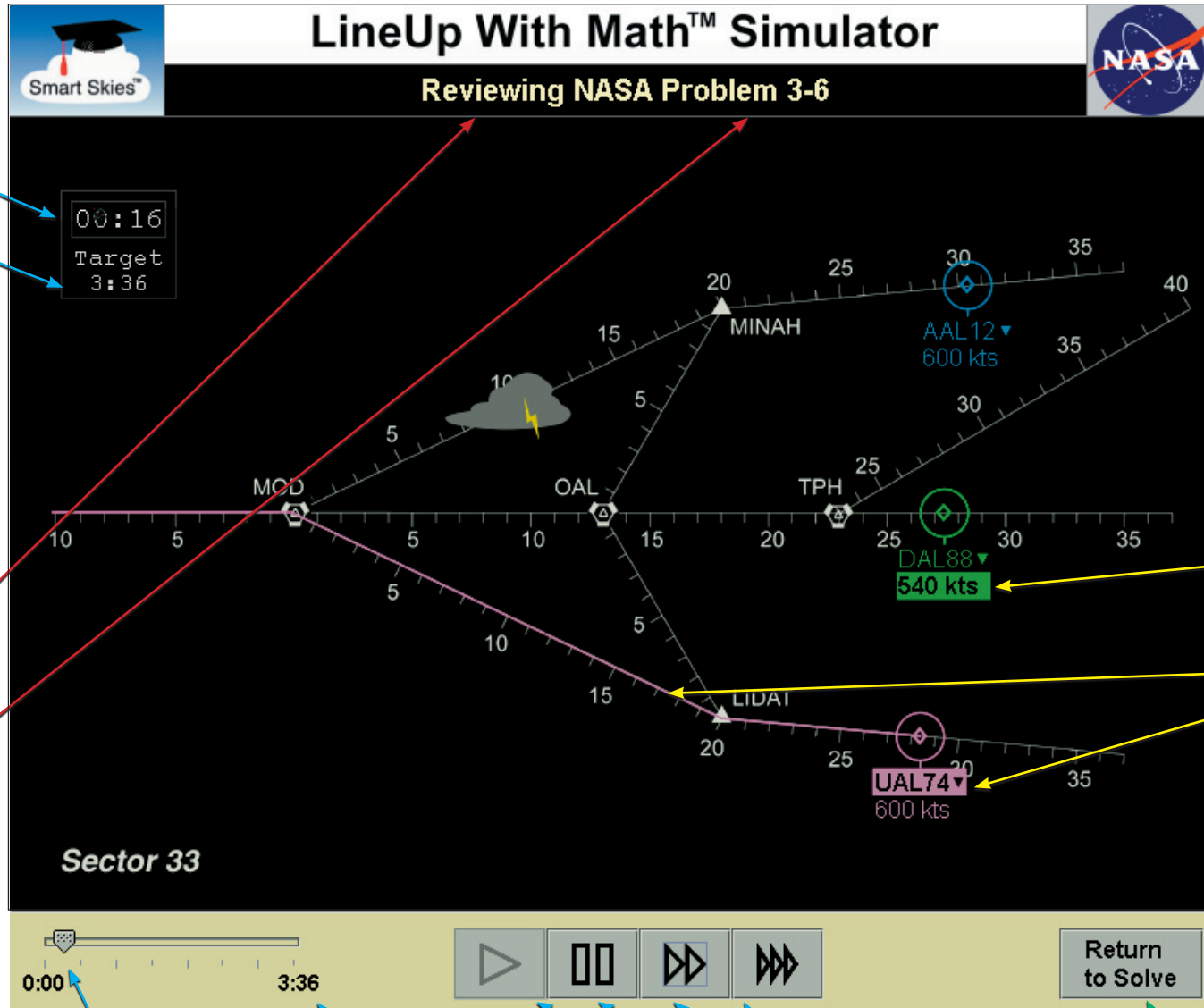
3
Change Plane Speed or Route
Data Tag - click and drag to move
Callsign - click to view or change route
Plane Speed - click to change speed

Sector 33

MOD, OAL, TPH, MINAH, LIDAT

AAL12 600 kts
DAL88 600 kts
UAL74 600 kts

Select Problem Create Problem [Play] [Pause] [4x Speed] [10x Speed] Review Reset



LineUp With Math™ Simulator
Creating New Problem

Available routes: SWA23, AAL12, UAL74, DAL88, NWA36

Planes on screen: USA51 (600 kts), MOD, OAL, TPH, LIDAT

Clouds: Sector 33

Buttons: Select Problem, Clear, More Info, Return to Solve

Message: The Save feature is not available in this version.

1

Drag a Plane to a Route

- available routes are highlighted
- planes snap to mile markers

2

Drag a Cloud to a Route

- available routes are highlighted

3

Adjust Plane Flight Plan

- Select Plane - click symbol
- Set Starting Position - drag a plane or click right or left arrows
- Set Starting Route - use route menu to pick a route
- Set Starting Speed - use speed menu to pick a speed

Select Problem - You can choose a problem to modify

Clear - You can remove all planes and clouds from sector

More Info - Learn how to Save problems you Create

4

Return to Solve - Return to Solve to try your problem