

FlightMax EX500 with MultiLink™ &



➤ Let's Go Flying...



# FlightMax EX500 with MultiLink™ &



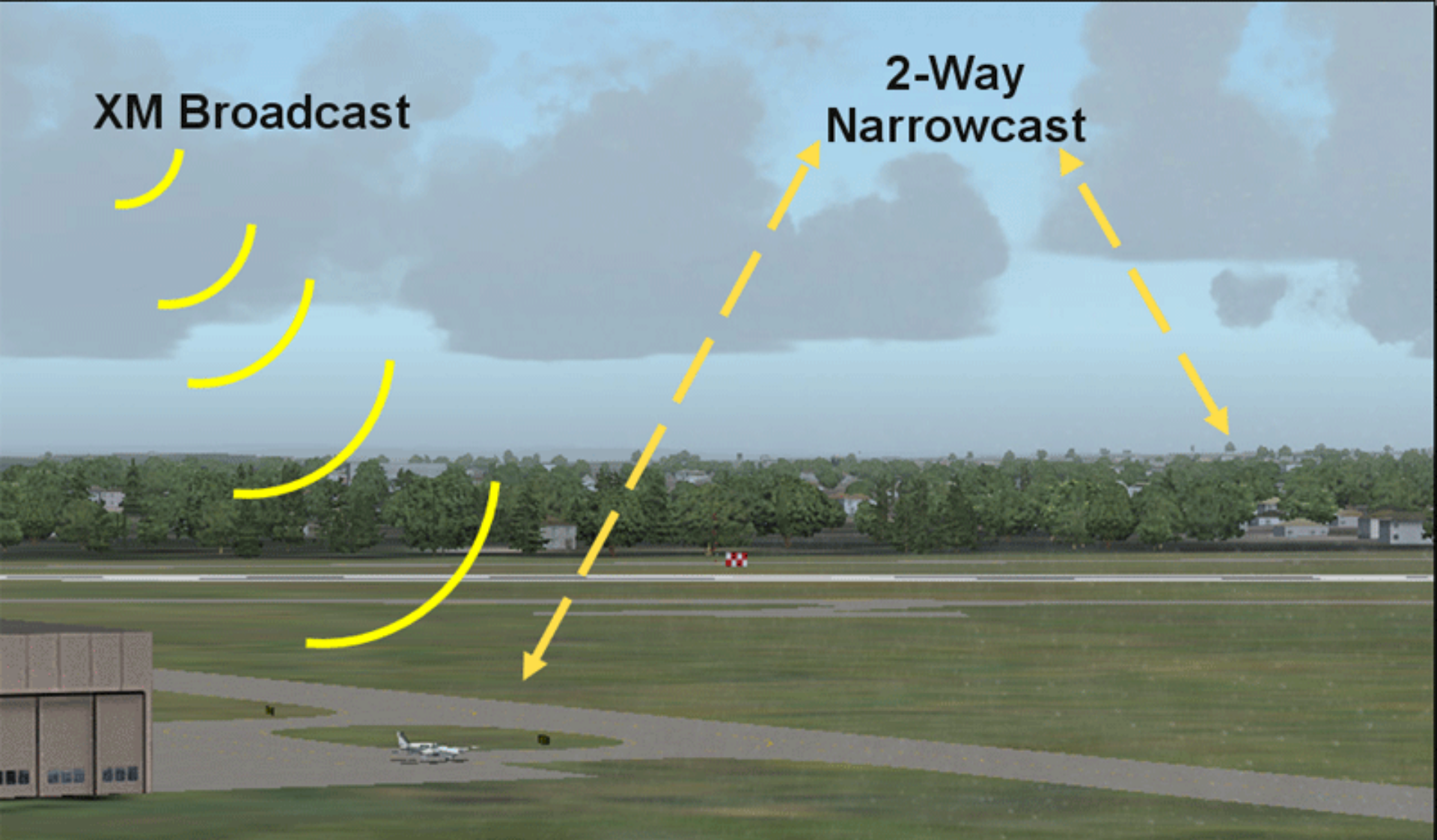
- Radar-equipped twin
- Raleigh, NC to Burlington, VT.
- Flight Plan KRDU → KBTV
  - KRDU
  - LDN – Linden VOR
  - HAR – Harrisburg VOR
  - HNK – Hancock VOR
  - KBTV



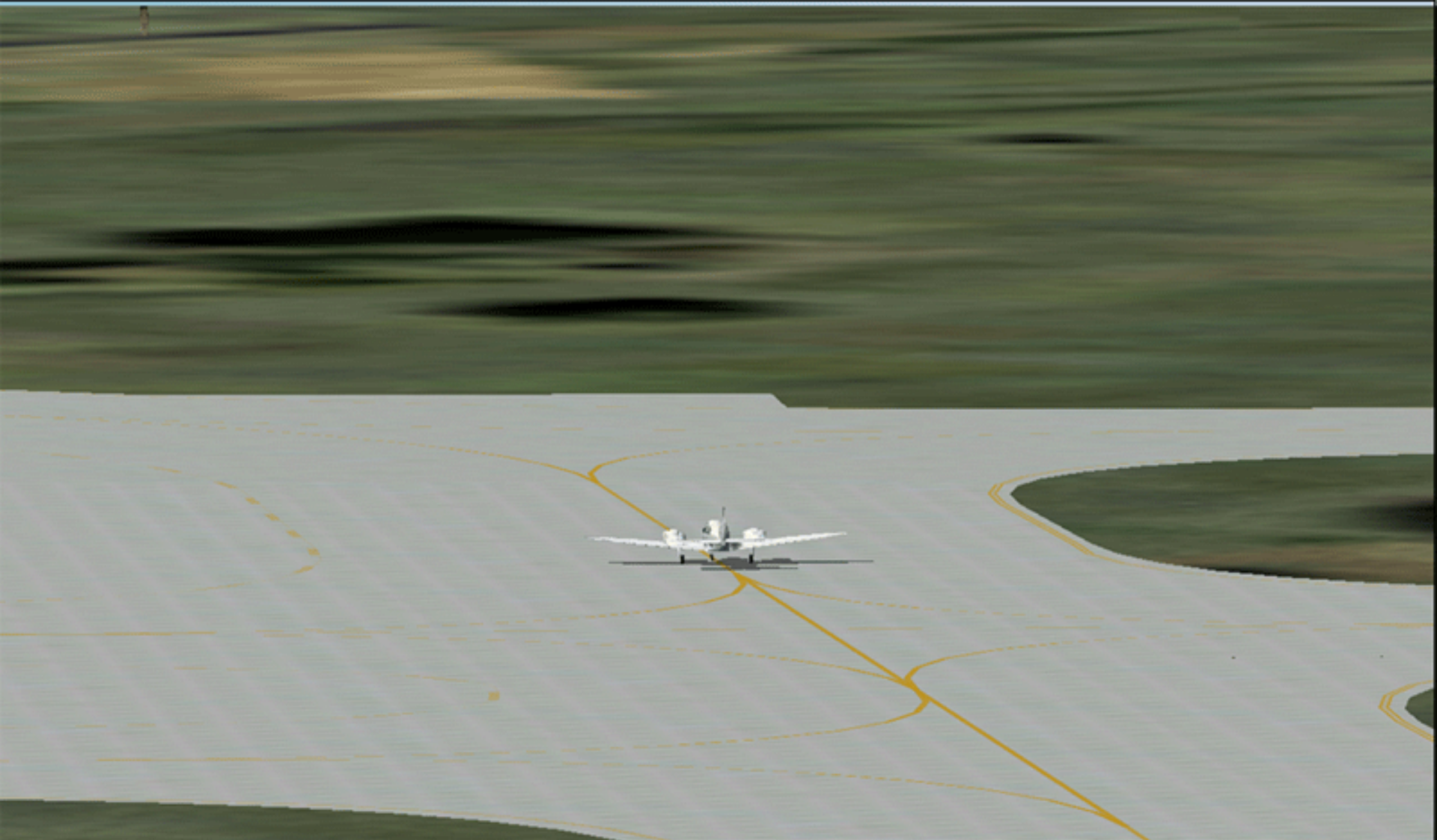


XM Broadcast

2-Way  
Narrowcast

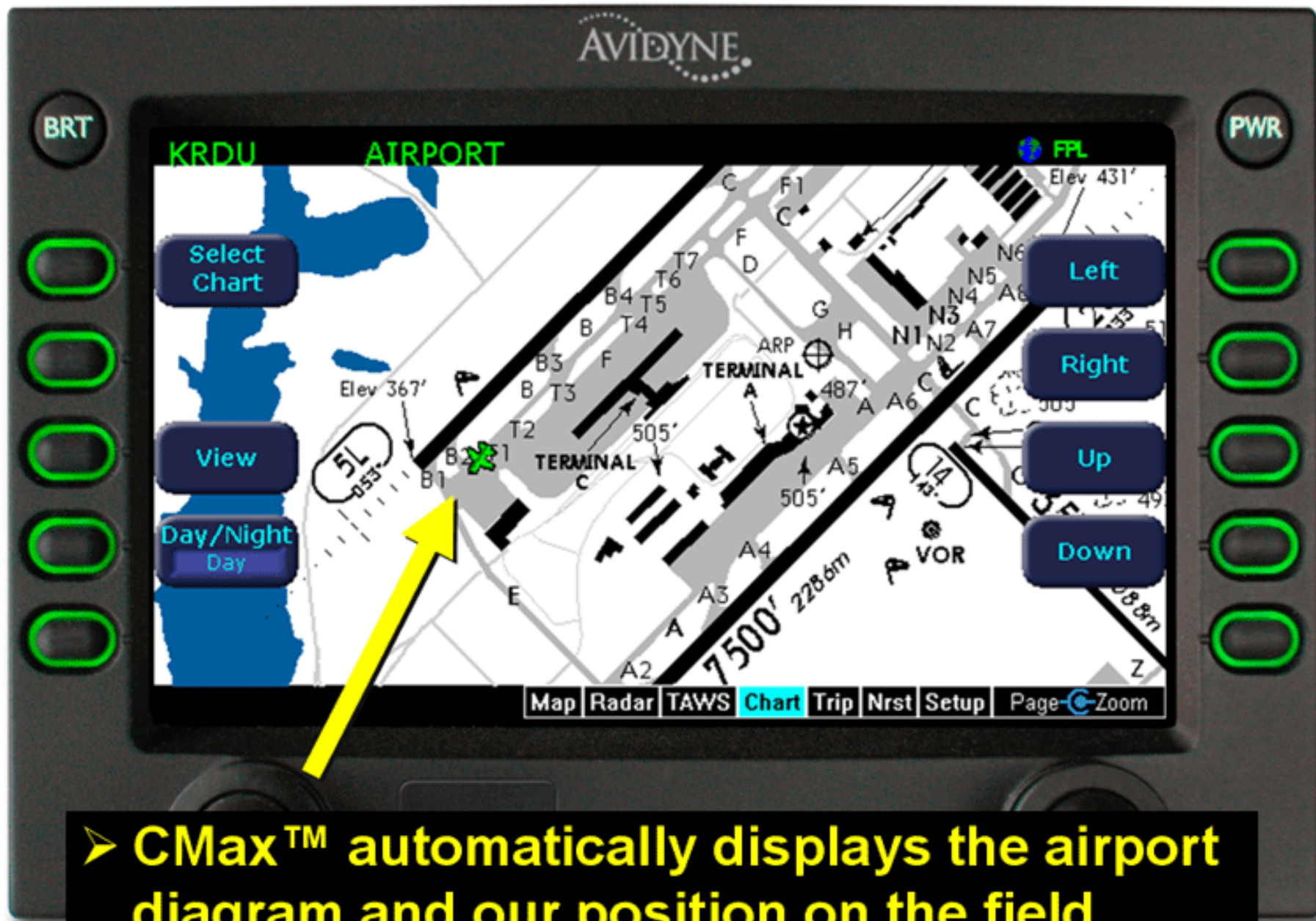


➤ At startup, a wakeup message is sent to initiate Flight Tracking, and weather information begins downlinking.

An aerial view of a white aircraft on a runway. The runway and taxiway are overlaid with a semi-transparent digital map showing yellow lines and dashed lines representing airport infrastructure. The background shows a green landscape under a clear sky.

➤ With CMax™, the EX500 automatically displays the airport diagram and our position on the field.





➤ CMax™ automatically displays the airport diagram and our position on the field.



The diagram shows an aircraft on a runway. On the left, a satellite in the sky is labeled 'XM Broadcast'. Yellow curved lines represent a broadcast signal from the satellite to the aircraft. On the right, another satellite is labeled '2-Way Narrowcast'. Yellow dashed arrows show a two-way communication link between the aircraft and this satellite. The background is a runway at dusk or dawn.

XM Broadcast

2-Way  
Narrowcast

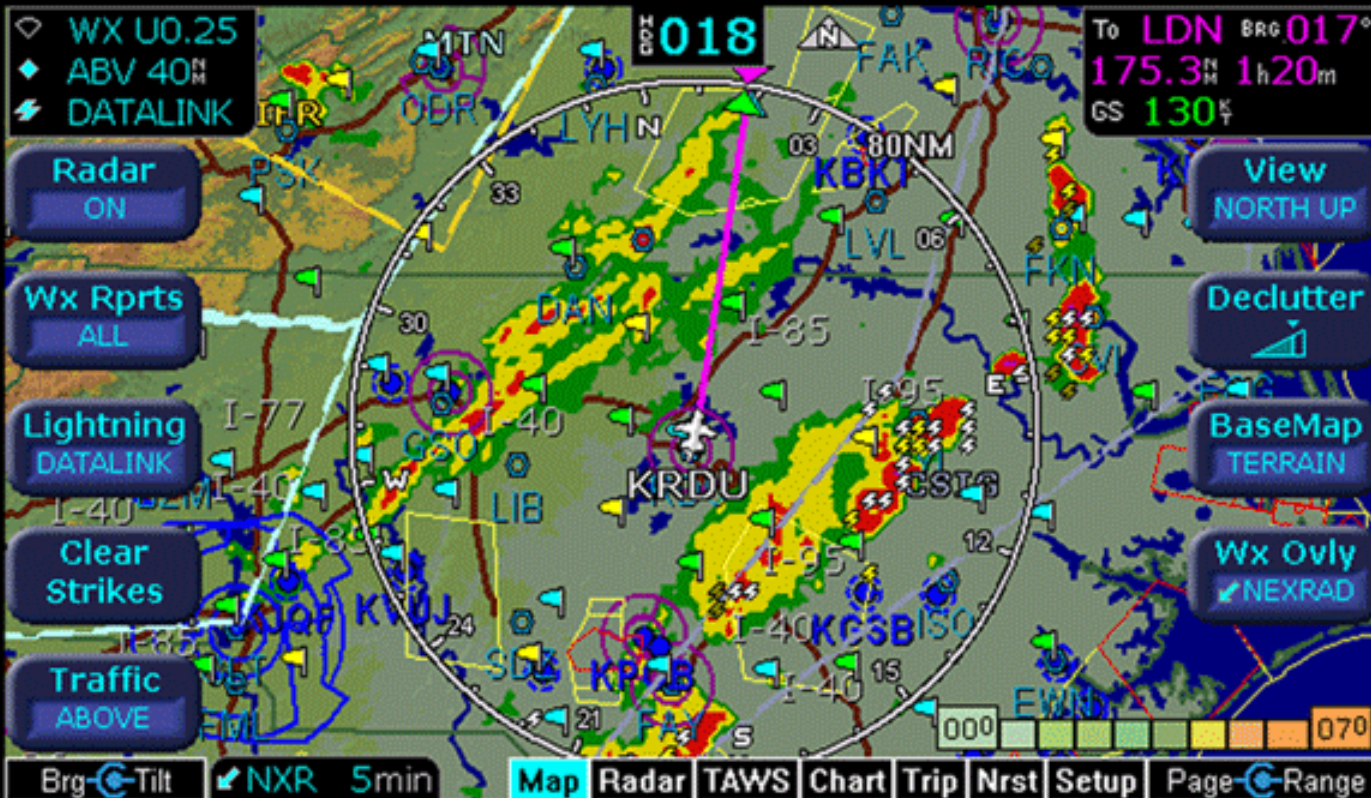
- EX500's MultiLink™ is already receiving XM datalink weather prior to departure.
- Narrowcast begins sending position reports.



AVIDYNE

BRT

PWR



➤ We have a great view of the weather prior to departure.





➤ **CMax™ shows our position on the runway.**



AVIDYNE

BRT

PWR

KRDU

AIRPORT

FPL

Elev 431'

Select Chart

Left

View

Right

Day/Night  
Day

Up

Down



Map Radar TAWS Chart Trip Nrst Setup Page-Zoom

➤ CMax™ shows our position on the runway.



➤ **CMax™** shows our position on the runway.



AVIDYNE

BRT

PWR

KRDU

AIRPORT

FPL

Elev 431'

Select Chart

Left

View

Right

Day/Night  
Day

Up

Down

Map Radar TAWS Chart Trip Nrst Setup Page-Zoom

➤ CMax™ shows our position on the runway.



➤ On climb-out, we are cleared as filed.



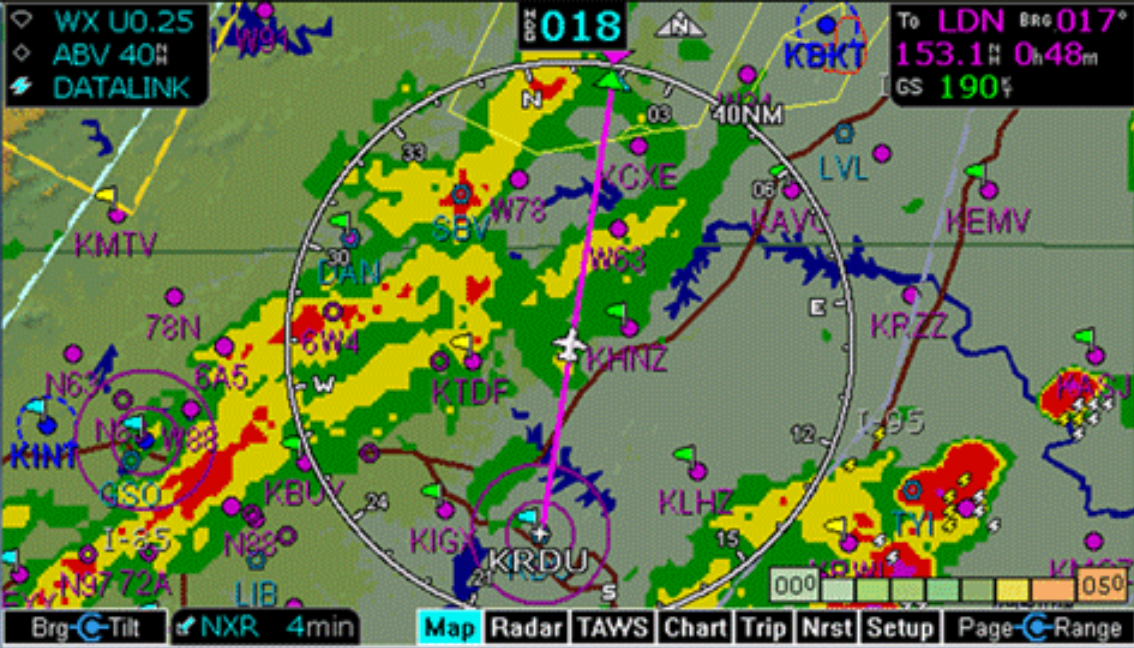


➤ The EX500 displays traffic at 2'oclock, +800ft and 4 miles.



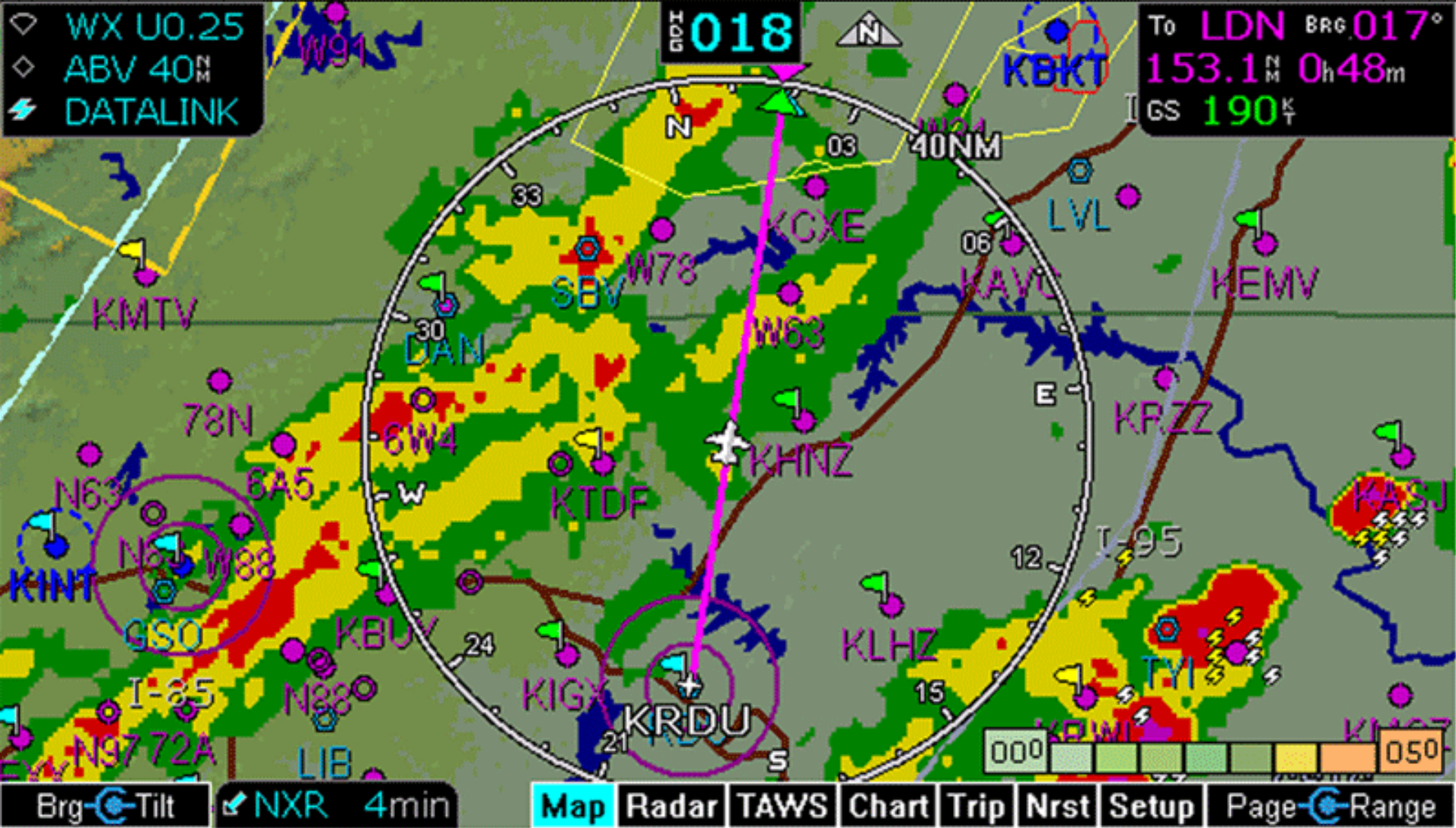
➤ It's currently no factor, but we'll keep an eye on it.





➤ Checking the weather ahead...





➤ NEXRADs are showing precipitation, but lightning activity is mostly to the East.





➤ The EX500 allows us to view the onboard Radar right over our Map for more tactical weather avoidance.



BRT

PWR

GS 130kts  
TRK 017°



Time 02:43:48  
UTC 02:43:48

WPT	BRG	DTK	NM	ETE	ETA	METAR
To: LDN	017°	018°	168.8	1:17	04:01	KSHD
Wx:			229.5			KBWI
HAR		040°	270.3	2:04	04:48	---
Wx:			315.5			KIPT
HNK		045°	402.4	3:05	05:49	KMSV
Dest: KBTW		042°	575.2	4:25	07:09	KBTW

KBTW  
Info

Display  
METAR

Special Conditions at KBTW  
Cloud: 3100 feet few  
4800 feet broken  
6000 feet broken  
Weather: light rain , mist

Age: 11 minutes  
Wind: calm  
Gust: none  
Visibility: 2 1/2SM  
Tmp/Dew: 23°C / 22°C  
Altimeter: 29.81 inches of Hg

Map Radar TAWS Chart **Trip** Nrst Setup Page-Select

➤ The Trip Page shows plain-English Text METARs all along our route of flight.



BRT

PWR

GS 130 kts  
TRK 017°



Time 02:43:48  
UTC 02:43:48

WPT	BRG	DTK	NM	ETE	ETA	METAR
To: LDN	017°	018°	168.8	1:17	04:01	KSHD
Wx:			229.5			KBWI
HAR		040°	270.3	2:04	04:48	---
Wx:			315.5			KIPT
HNK		045°	402.4	3:05	05:49	KMSV
Dest: KBTW		042°	575.2	4:25	07:09	KBTW

KBTW Info

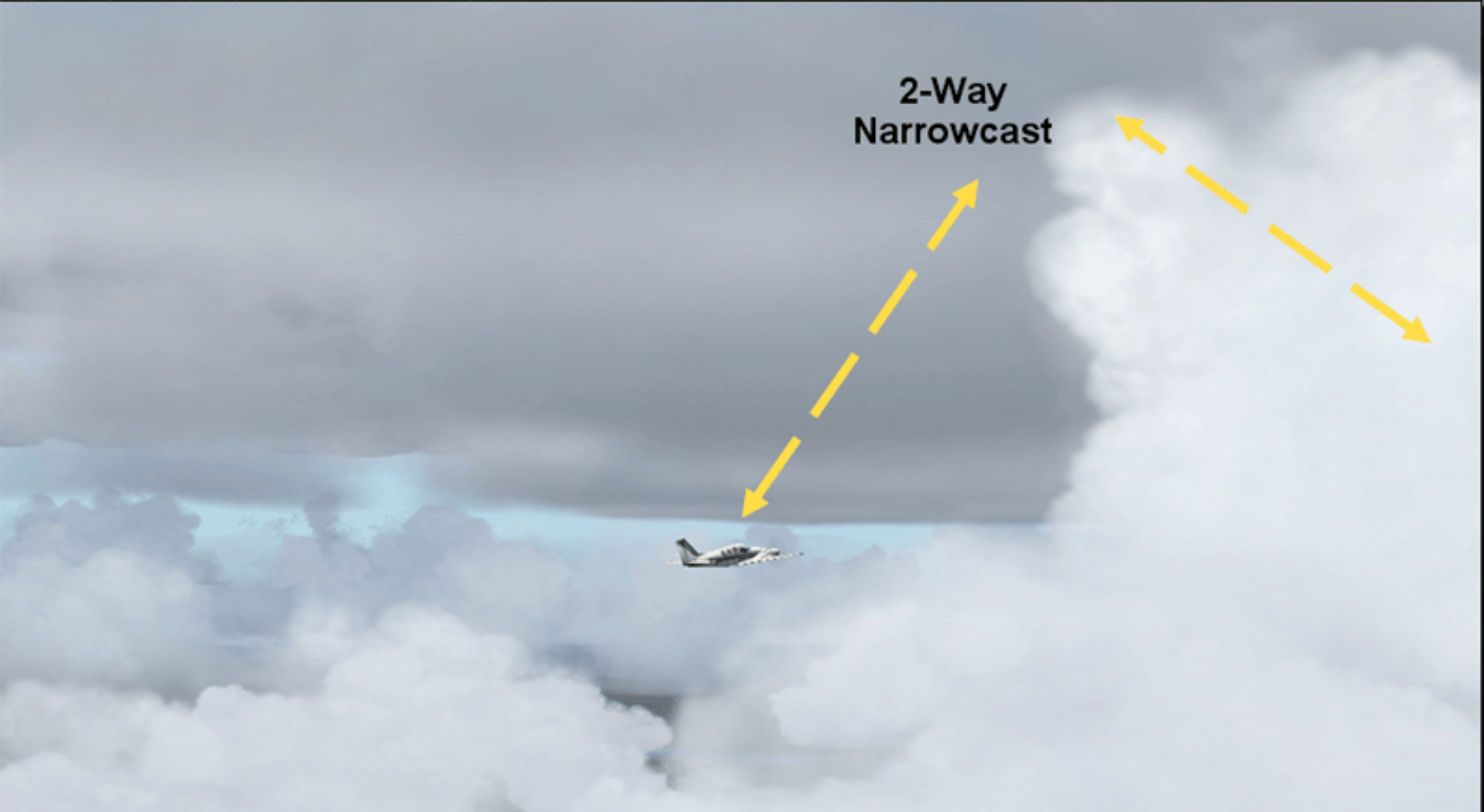
Display METAR

Special Conditions at KBTW  
 Cloud: 3100 feet few  
 4800 feet broken  
 6000 feet broken  
 Weather: light rain , mist

Age: 11 minutes  
 Wind: calm  
 Gust: none  
 Visibility: 2 1/2SM  
 Tmp/Dew: 23°C / 22°C  
 Altimeter: 29.81 inches of Hg

Map Radar TAWS Chart Trip Nrst Setup Page-Select

➤ KBTW is reporting IFR conditions with light rain and mist. 3,100ft and 2 1/2.

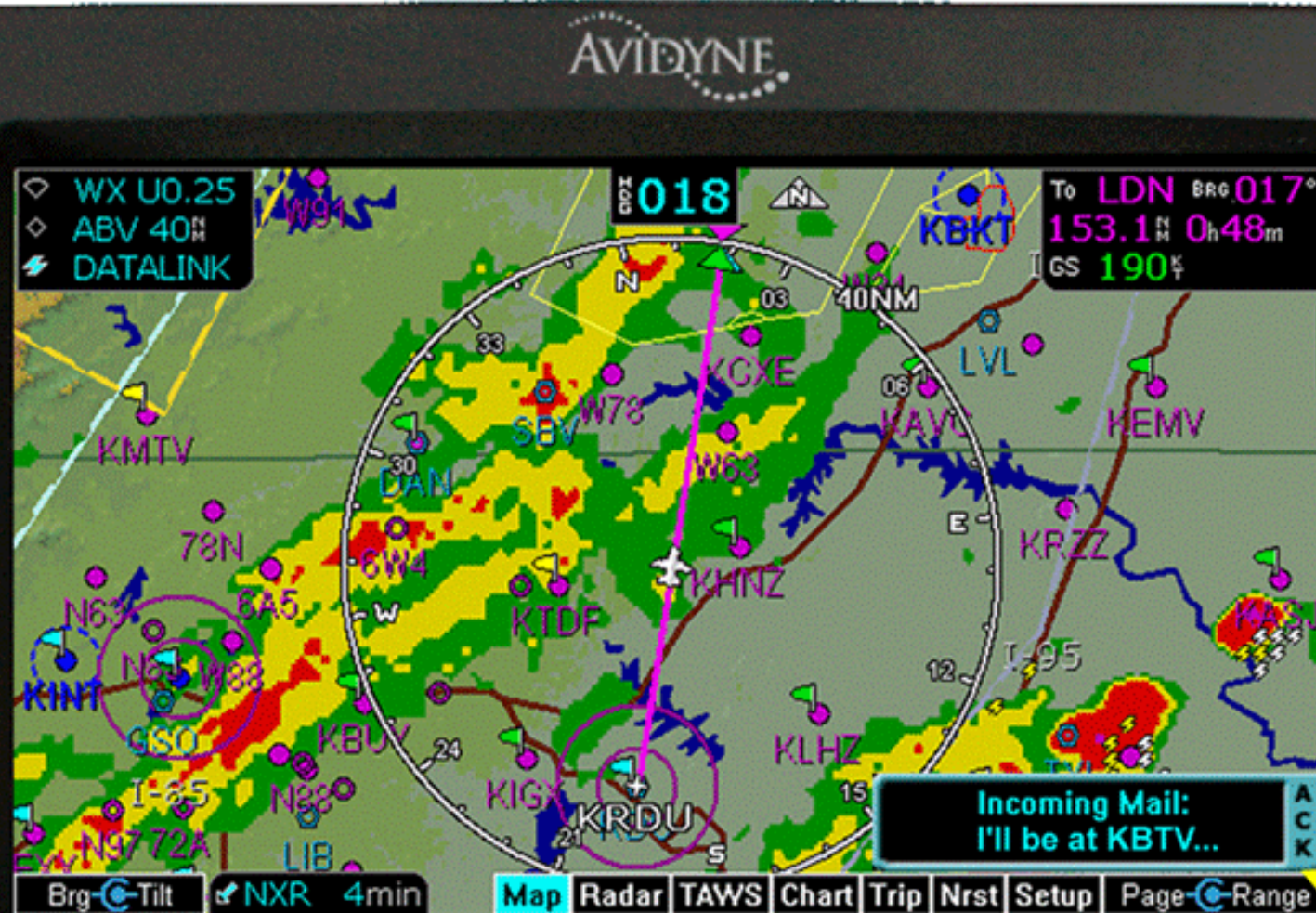


2-Way  
Narrowcast

➤ While en route, *MultiLink* allows you to send and receive Text Messages ...



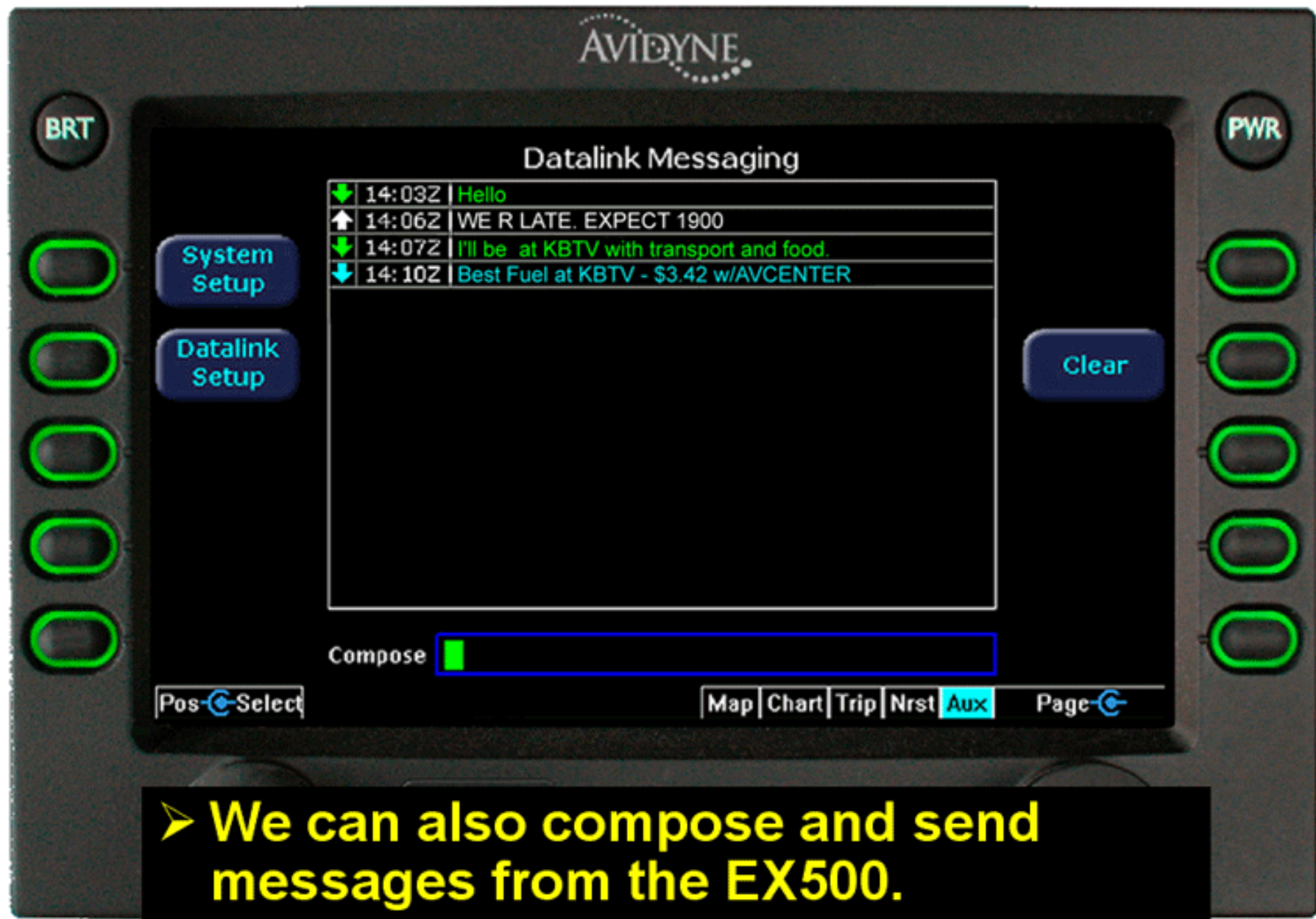
# Text Messaging - Incoming



➤ We are alerted when an incoming message is received.



# Text Messaging



➤ We can also compose and send messages from the EX500.



# *Text Messaging – Web page*



➤ Messages can be sent and received on the ground through the [myAvidyne.com](http://myAvidyne.com) web site.

# Text Messaging – Web page



Buddy for N8807M The Integrated Flight Deck Company

## DATALINK MESSAGING

[Messaging](#)

[Tracking](#)

[CONTACT US](#)

[MERCHANDISE](#)

Sender	Status	Time	Text
Buddy	↑ Delivered	17022	Hello
Airplane	↓ Received	17152	We R Late. Expect 1900
Buddy	↑ Delivered	17062	I'll be at KBTv with transport and food.
Avidyne Ops	↑ Submitted	18022	Best Fuel at KBTv - \$3.42 w/AVCENTER

Compose Message:

[Privacy](#) | [Terms of Use Agreement](#) | [Disclaimer](#)

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# Flight Tracking

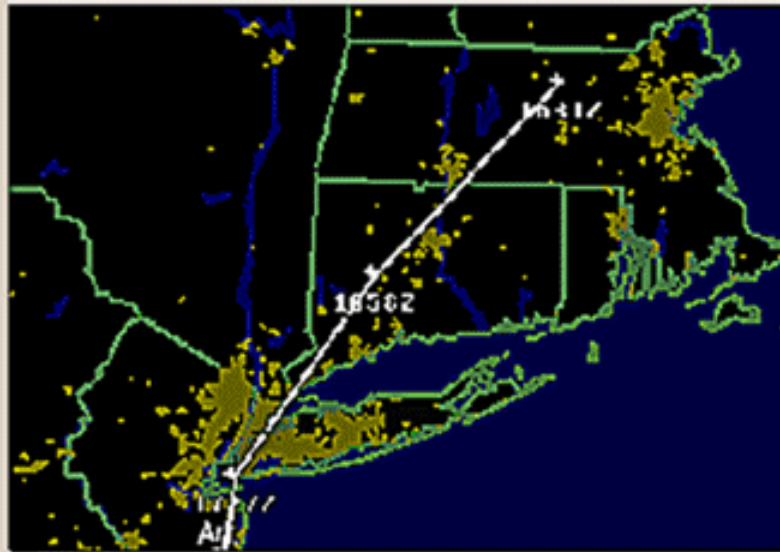


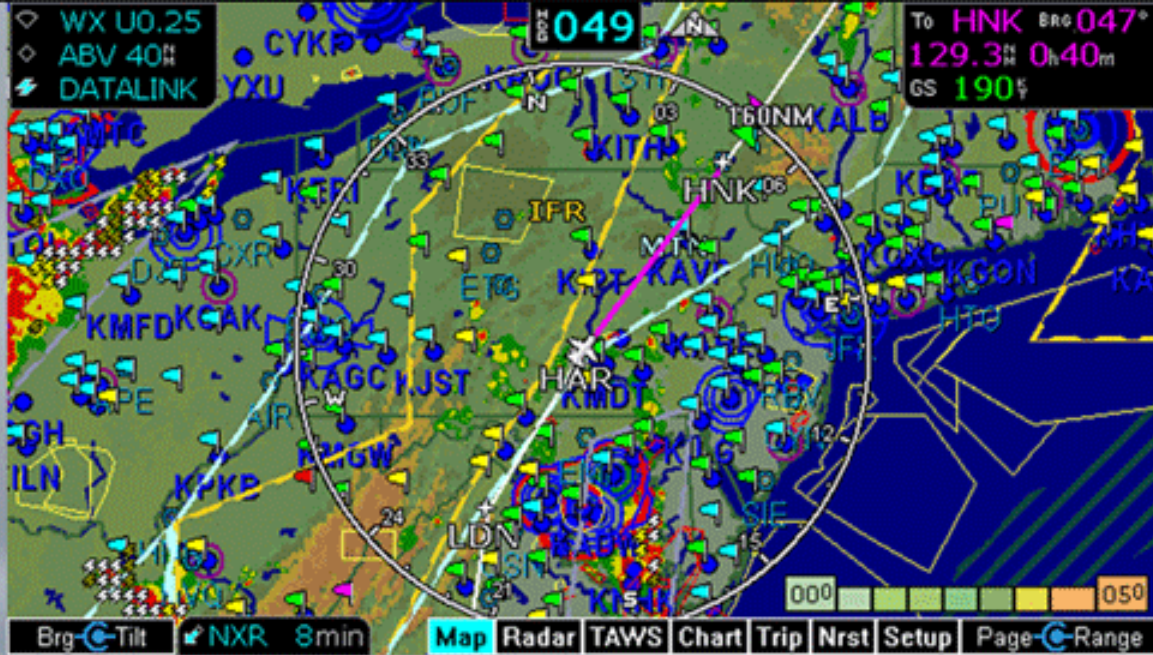
Buddy for N8807M The Integrated Flight Deck Company

## Show Flight Tracks

Messaging	Tracking		CONTACT US	MERCHANDISE
6/3/2004	1422Z	1516Z	00.8	<a href="#">details</a>
6/3/2004	0033Z	0033Z	00.0	<a href="#">details</a>
6/4/2004	1918Z	2019Z	01.0	<a href="#">details</a>

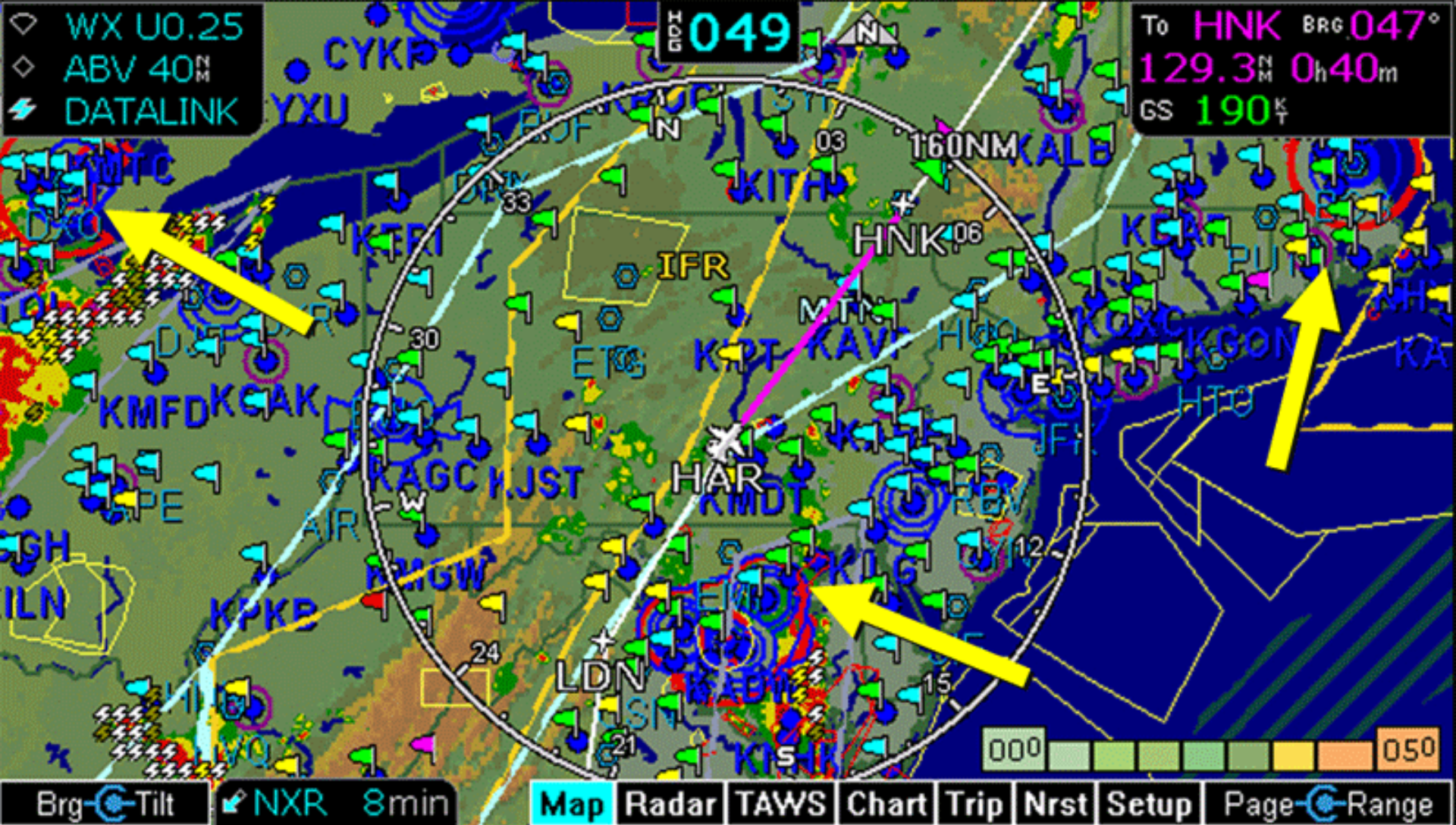
➤ And “Flight Tracking” allows a dispatcher on the ground to view our flight progress.





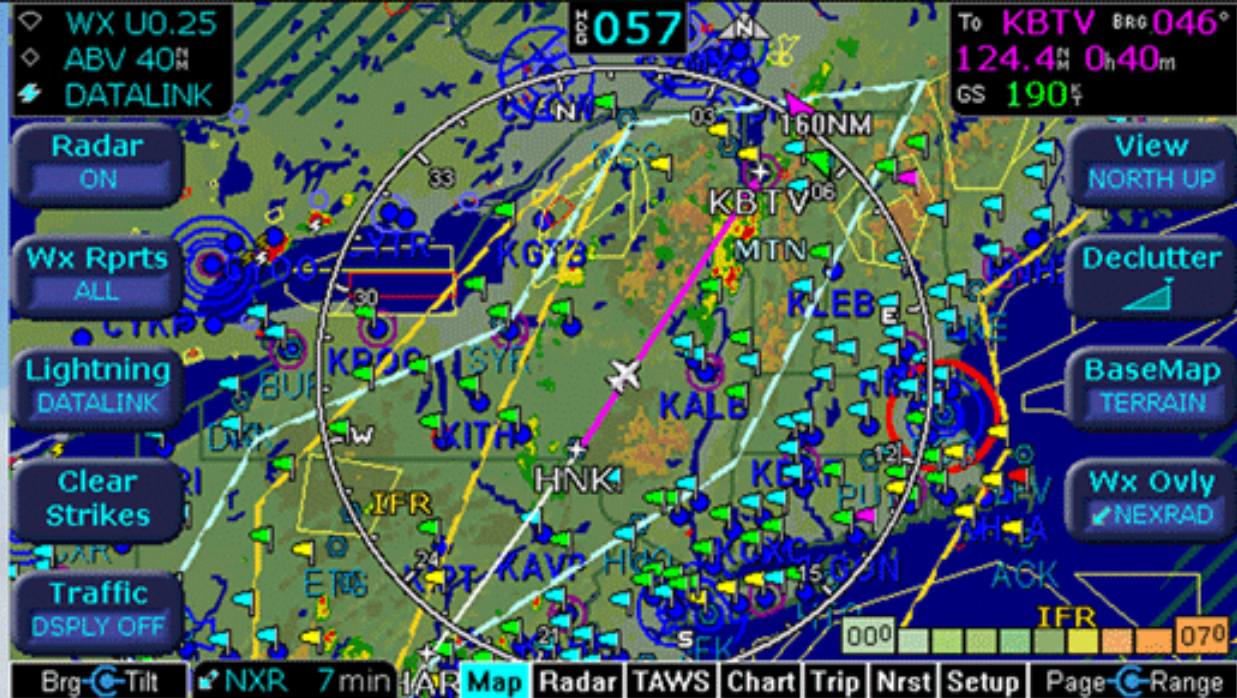
➤ At a glance we can see the graphical METARs showing IFR conditions all along our route.





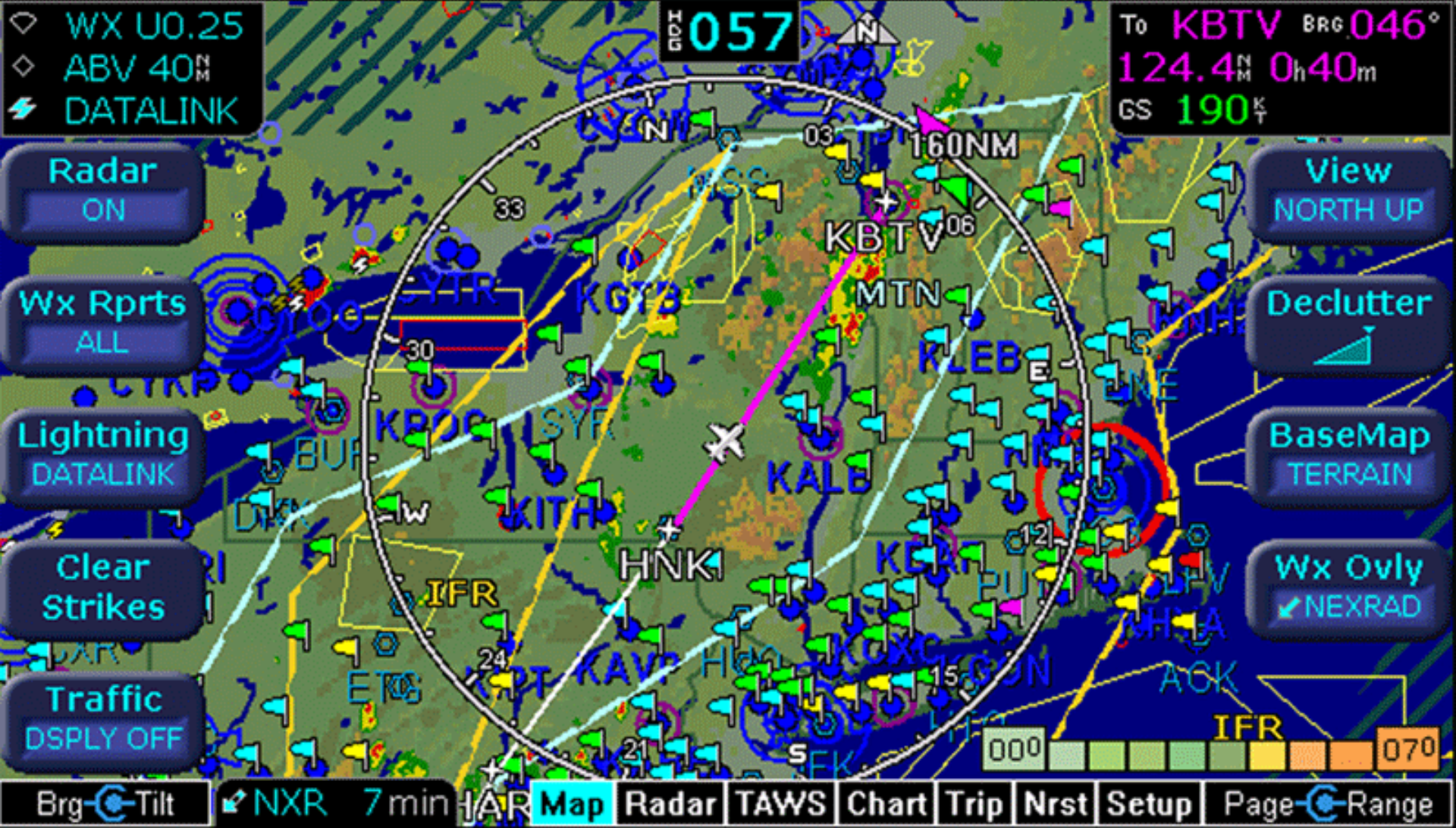
➤ We can also see the TFRs that are currently in effect over DC, Detroit and Boston.





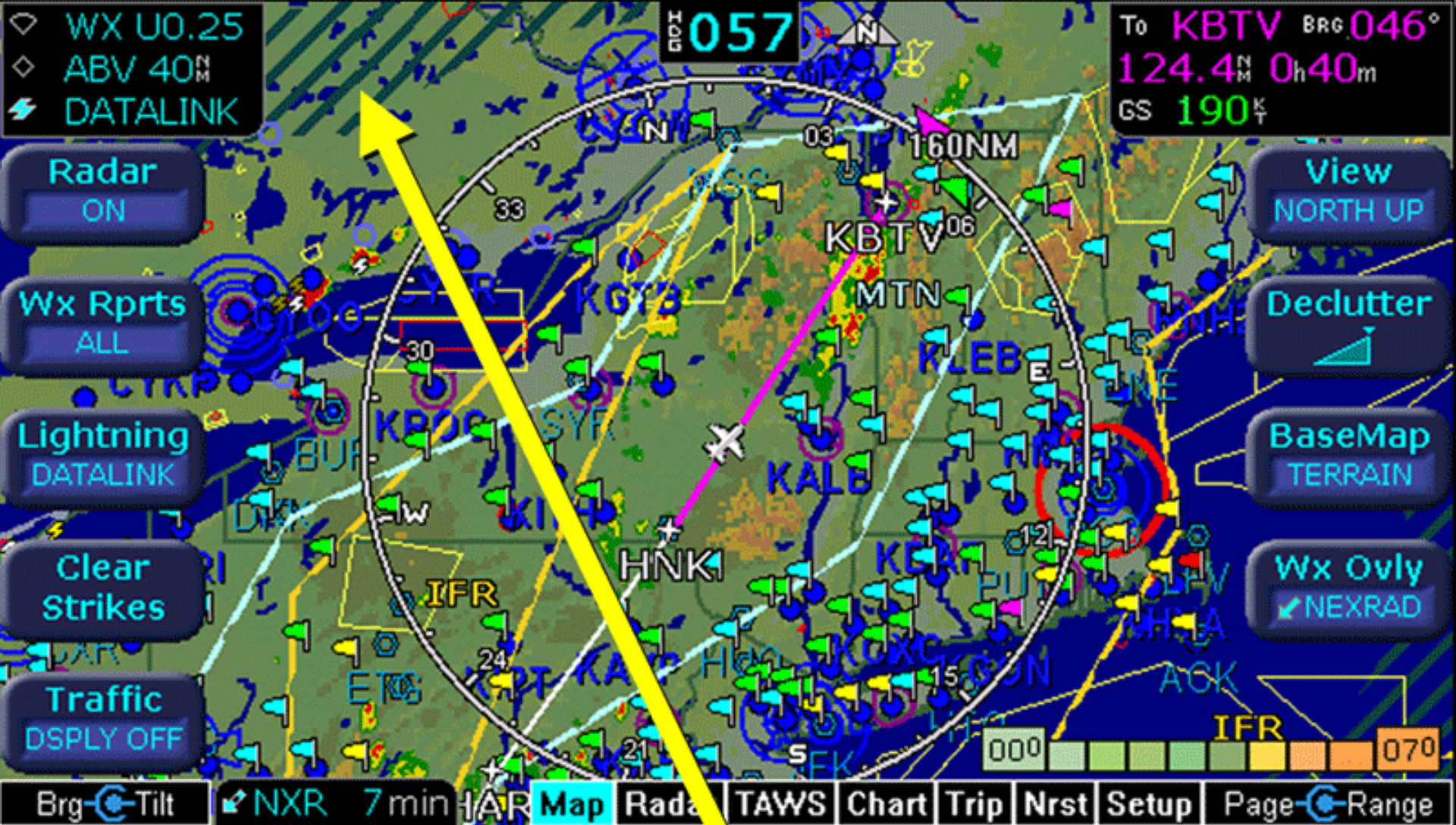
➤ We've now crossed the Hancock VOR...





➤ ...inbound for Burlington, VT.





➤ If we were flying into Canada on this trip, MultiLink would automatically provide weather outside the continental US.



BRT

PWR

## Airports Nearest to Destination

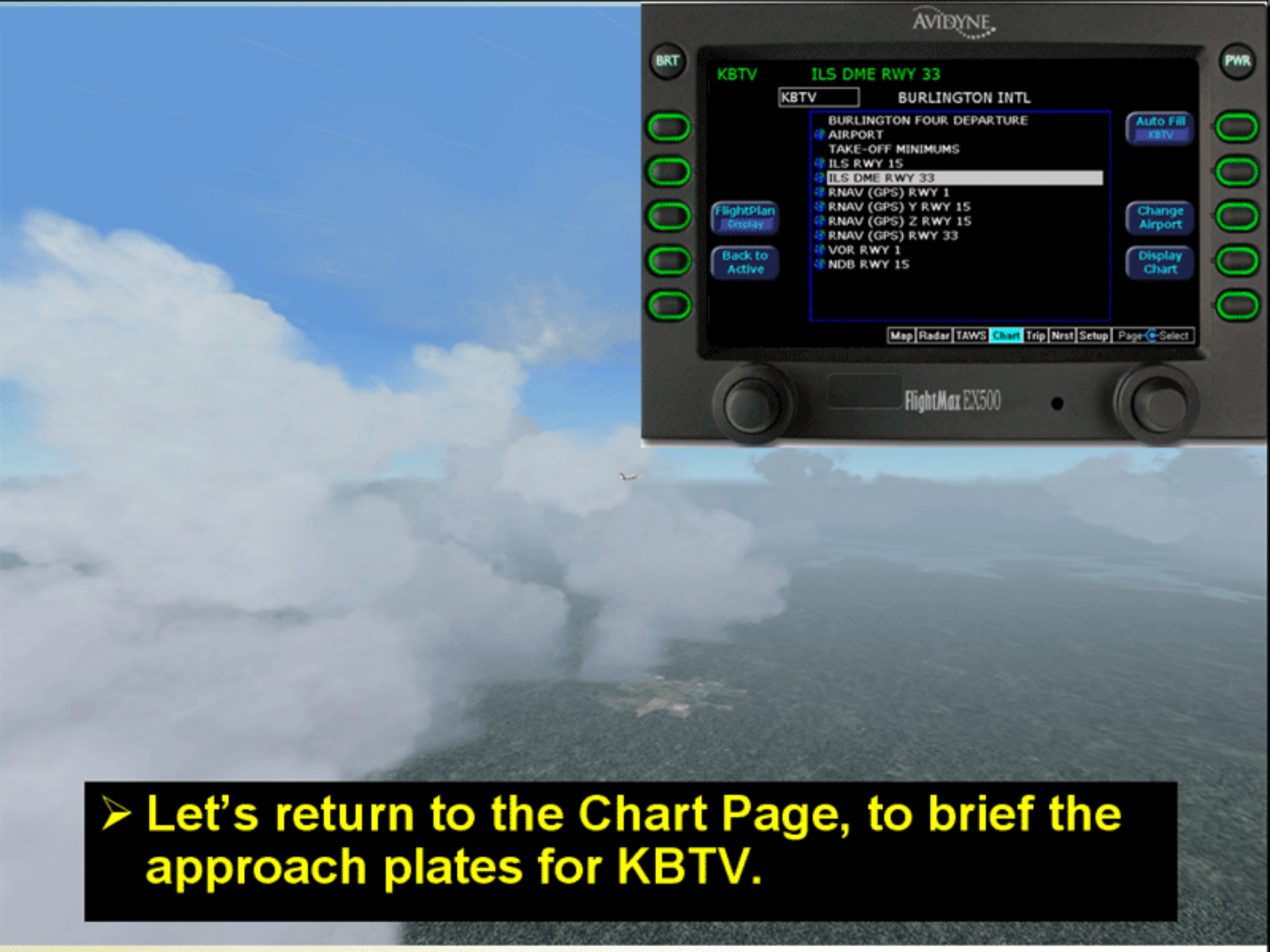
	ID	BRG	NM	Freq	Name
	HAR	041°	84.4	122.80	BAR HARBOR
	NIDUQ	141°	405.1	122.80	BURLINGTON INTL
	CF33	321°	407.1	122.80	BURLINGTON INTL
	EHIKO	321°	411.1	122.80	BURLINGTON INTL
	RW33	321°	420.2	122.90	BURLINGTON INTL
	BTV	212°	424.7	121.00	BURLINGTON INTL
	BTV	---	436.7	122.72	BURLINGTON INTL

- Airport Info
- Type DEST APT
- Chart

Special Conditions at KBTV  
 Cloud: 3100 feet few  
 4800 feet broken  
 6000 feet broken  
 Weather: light rain , mist

Age: 11 minutes  
 Wind: calm  
 Gust: none  
 Visibility: 2 1/2SM  
 Tmp/Dew: 23°C / 22°C  
 Altimeter: 29.81 inches of Hg

➤ Destination airport is still reporting IFR conditions with light rain and mist.



➤ Let's return to the Chart Page, to brief the approach plates for KBTV.



AVIDYNE

BRT

PWR

KBTW

ILS DME RWY 33

KBTW

BURLINGTON INTL

BURLINGTON FOUR DEPARTURE

- AIRPORT
- TAKE-OFF MINIMUMS
- ILS RWY 15
- ILS DME RWY 33
- RNAV (GPS) RWY 1
- RNAV (GPS) Y RWY 15
- RNAV (GPS) Z RWY 15
- RNAV (GPS) RWY 33
- VOR RWY 1
- NDB RWY 15

Auto Fill  
KBTW

Change  
Airport

Display  
Chart

FlightPlan  
Display

Back to  
Active

Map Radar TAWS Chart Trip Nrst Setup Page-Select

➤ The “Auto Fill” button provides one-touch access to our destination airport charts.

AVIDYNE

BRT

PWR

KBTW

ILS DME RWY 33

KBTW

BURLINGTON INTL

BURLINGTON FOUR DEPARTURE

- AIRPORT
- TAKE-OFF MINIMUMS
- ILS RWY 15
- ILS DME RWY 33
- RNAV (GPS) RWY 1
- RNAV (GPS) Y RWY 15
- RNAV (GPS) Z RWY 15
- RNAV (GPS) RWY 33
- VOR RWY 1
- NDB RWY 15

Auto Fill  
KBTW

FlightPlan  
Display

Back to  
Active

Change  
Airport

Display  
Chart

Map Radar TAWS Chart Trip Nrst Setup Page-Select

➤ Or you can easily access the charts for any other airport in the data base.



AVIDYNE

BRT

PWR

KBTW

ILS DME RWY 33

KBTW

BURLINGTON INTL

BURLINGTON FOUR DEPARTURE

- AIRPORT
- TAKE-OFF MINIMUMS
- ILS RWY 15
- ILS DME RWY 33
- RNAV (GPS) RWY 1
- RNAV (GPS) Y RWY 15
- RNAV (GPS) Z RWY 15
- RNAV (GPS) RWY 33
- VOR RWY 1
- NDB RWY 15

Auto Fill  
KBTW

Change  
Airport

Display  
Chart

FlightPlan  
Display

Back to  
Active

Map Radar TAWS Chart Trip Nrst Setup Page-Select

➤ We select the ILS DME RWY 33 in KBTW, then "Display Chart."



AVIDYNE

BRT

KBTV

ILS DME RWY 33

FPL

PWR

Select Chart

Display Airport

View

Day/Night  
Day

Left

Right

Up

Down



Map Radar TAWS Chart Trip Nrst Setup Page Zoom

➤ Using the “View” Button...

AVIDYNE

BRT

PWR

KBTV

ILS DME RWY 33

FPL

KBTV/BTV

JEPPESEN

BURLINGTON, VT

BURLINGTON INTL

1 AUG 03 (11-2)

ILS DME Rwy 33

Select Chart

Display Airport

View

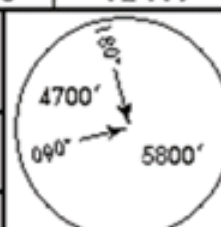
Day/Night  
Day

LOC (O/T)	*BURLINGTON Approach (R)	BOSTON Center (R)	*BURLINGTON Tower	*Ground
	121.1	120.35 when App inop.	CTAF 118.3	121.9

Final Apch Crs 326°	GS EMIKO 3576' (3241')	ILS DA (H) Refer to Minimums	Apt Elev 335' TDZE 335'
------------------------	------------------------------	---------------------------------------	----------------------------

MISSED APCH: Climb to 1200', then climbing LEFT turn to 2700'  
Refer to BTV VOR and hold.

Trans level: FL 180  
Trans alt: 18000'



MSA BTV VOR

Map Radar TAWS Chart Trip Nrst Setup Page

➤ We can view the chart's Header...



AVIDYNE

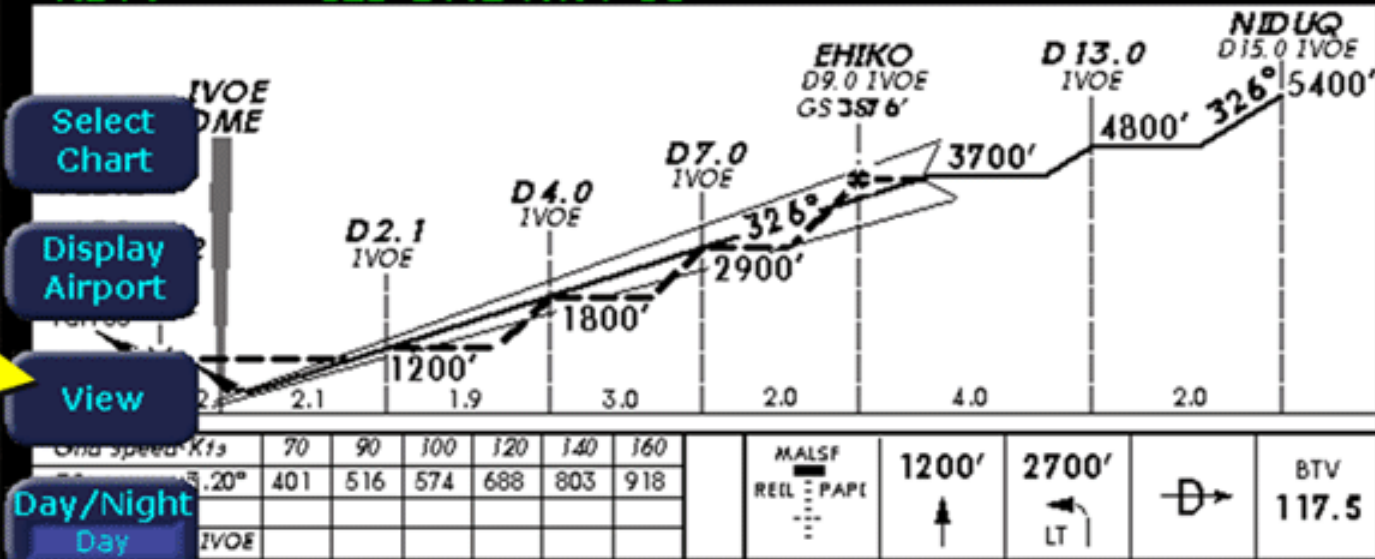
BRT

PWR

KBTV

ILS DME RWY 33

FPL



Select Chart

Display Airport

View

Day/Night  
Day

Map Radar TAWS Chart Trip Nrst Setup Page

➤ The Profile view...

AVIDYNE

BRT

PWR

KBTW

ILS DME RWY 33

FPL

STRAIGHT-IN LANDING RWY 33

CIRCLE-TO-LAND

ILS		LOC (GS out)		Max Kts	MDA(M)
D/M	A, B: 535' (200')		MDA(M) 820' (485')		
	D: 585' (250')	ALS out	ALS out	90	860' (525') - 1
	RVR 40 or 3/4		RVR 50 or 1	120	
	RVR 50 or 1		RVR 60 or 1 1/4	140	860' (525') - 1 1/2
			1 1/2	165	1000' (665') - 2

Select Chart

Display Airport

View

Day/Night  
Day

sequence.

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Map Radar TAWS Chart Trip Nrst Setup Page

➤ The Data fields (Minimums)...



AVIDYNE

BRT

KBTV

ILS DME RWY 33

FPL

PWR

Select Chart

Display Airport

View

Day/Night  
Day

Left

Right

Up

Down



Map Radar TAWS Chart Trip Nrst Setup Page Zoom

Flight Map RV500

➤ And back to the Plan view.

AVIDYNE

BRT

PWR

KBTV

ILS DME RWY 33

FPL

KBTV/BTV

BURLINGTON INTL

JEPPESEN

1 AUG 03 (11-2)

BURLINGTON, VT

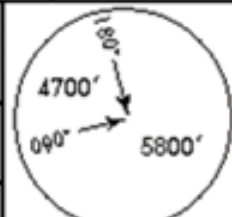
ILS DME Rwy 33

Select Chart

Display Airport

View

Day/Night  
Day

LOC (D/T)	*BURLINGTON Approach (R)	BOSTON Center (R)	*BURLINGTON Tower	*Ground
	121.1	120.35 when App inop.	CTAF 118.3	121.9
Final Apch Crs 326°	GS EMIKO 3576' (3241')	ILS DA (H) Refer to Minimums	Apt Elev 335' TDZE 335'	
MISSED APCH: Climb to 1200', then climbing LEFT turn to 2700'				
BTV VOR and hold.				
Trans level: FL 180		Trans alt: 18000'		
1. Helicopter operations required. 2. Procedure not authorized when Twr inop. 3. Prior controlled lighting 118.3.				
MSA BTV VOR				

Map Radar TAWS Chart Trip Nrst Setup Page

➤ Buttons time out after user-defined amount of time for easier viewing...



AVIDYNE

BRT

PWR

**KBTV**

**ILS DME RWY 33**

**FPL**

**KBTV/BTV  
BURLINGTON INTL**

**JEPPESEN**

**BURLINGTON, VT  
ILS DME Rwy 33**

1 AUG 03 **(11-2)**

*ATIS [ASOS O/T] <b>123.8</b>	*BURLINGTON Approach (R) <b>121.1</b>	BOSTON Center (R) <b>120.35</b> when App inop.	*BURLINGTON Tower <b>CTAF 118.3</b>	*Ground <b>121.9</b>
LOC I/VOE <b>110.3</b>	Final Apch Crs <b>326°</b>	GS <b>EMIKO</b> <b>3576'</b> (3241')	ILS DA (H) Refer to Minimums	Apt Elev <b>335'</b> TDZE <b>335'</b>
<b>MISSED APCH: Climb to 1200', then climbing LEFT turn to 2700' direct BTV VOR and hold.</b>				<p>MSA BTV VOR</p>
Alt Set: INCHES		Trans level: FL 180		

1. RADAR required. 2. Procedure not authorized when Twr inop.  
3. Pilot controlled lighting 118.3.



Map Radar TAWS **Chart** Trip Nrst Setup Page

➤ **Buttons time out after user-defined amount of time for easier viewing...**



➤ We've loaded the approach into our GPS ...



AVIDYNE

BRT

PWR

KBTV

ILS DME RWY 33

FPL

- Select Chart
- Display Airport
- View
- Day/Night  
Day

- Left
- Right
- Up
- Down



Map Radar TAWS Chart Trip Nrst Setup Page Zoom

Flight Deck DV500

➤ ... and selected 'NIDUQ' as the IAF



➤ **And we've begun our descent into KBTV.**



AVIDYNE

BRT

PWR

◇ WX U0.25  
◇ ABV 40<sup>ft</sup>  
⚡ DATALINK

To **NIDUQ** BRG **055°**  
**6.4** <sup>N</sup> **3m11s**  
GS **120** <sup>K</sup>

Radar  
ON

View  
NORTH UP

Wx Rpts  
ALL

Declutter

Lightning  
DATALINK

BaseMap  
TERRAIN

Clear  
Strikes

Wx Ovly  
NEXRAD

Traffic  
DSPLY OFF

Brg-Tilt NXR 7 min Map Radar TAWS Chart Trip Nrst Setup Page-Range

➤ We're now on a left base...



AVIDYNE

BRT

PWR

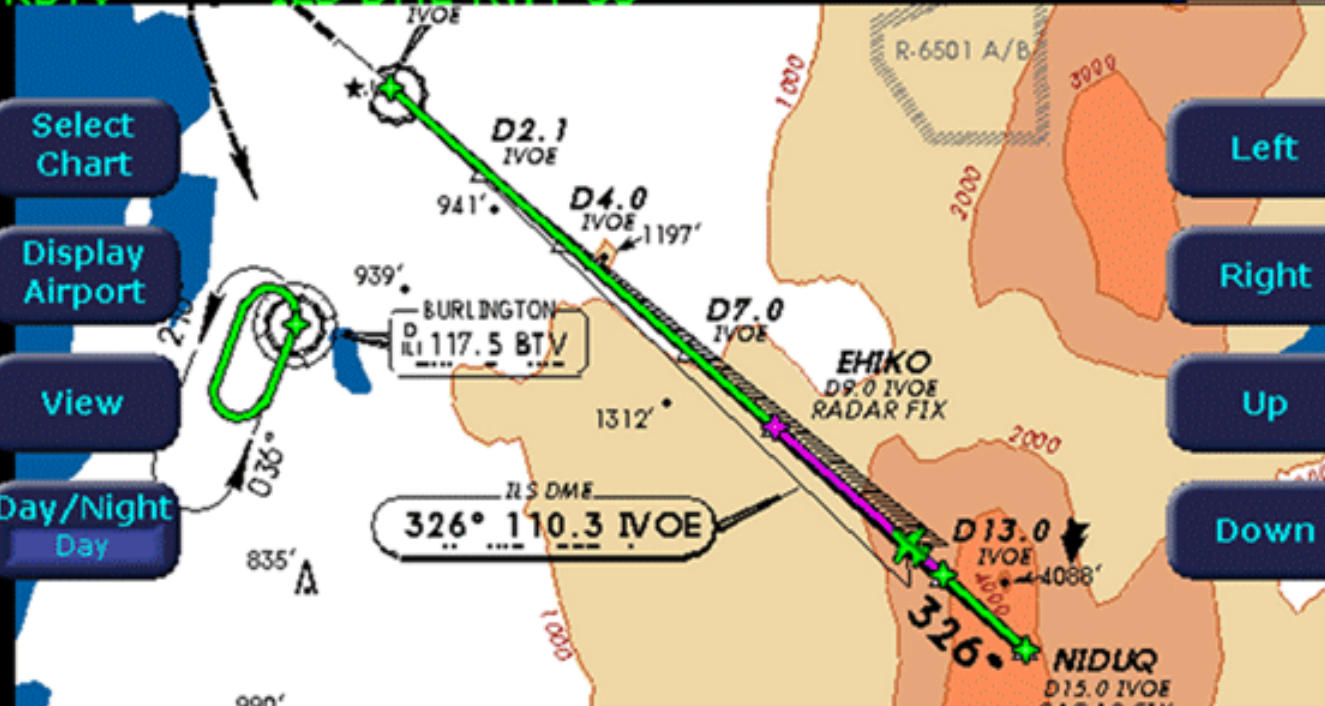
KBTW

ILS DME RWY 33

FPL

- Select Chart
- Display Airport
- View
- Day/Night Day

- Left
- Right
- Up
- Down



Map Radar TAWS Chart Trip Nrst Setup Page Zoom

➤ We've intercepted the ILS, inbound for RWY33.









AVIDYNE

BRT

PWR

KBTW

ILS DME RWY 33

FPL

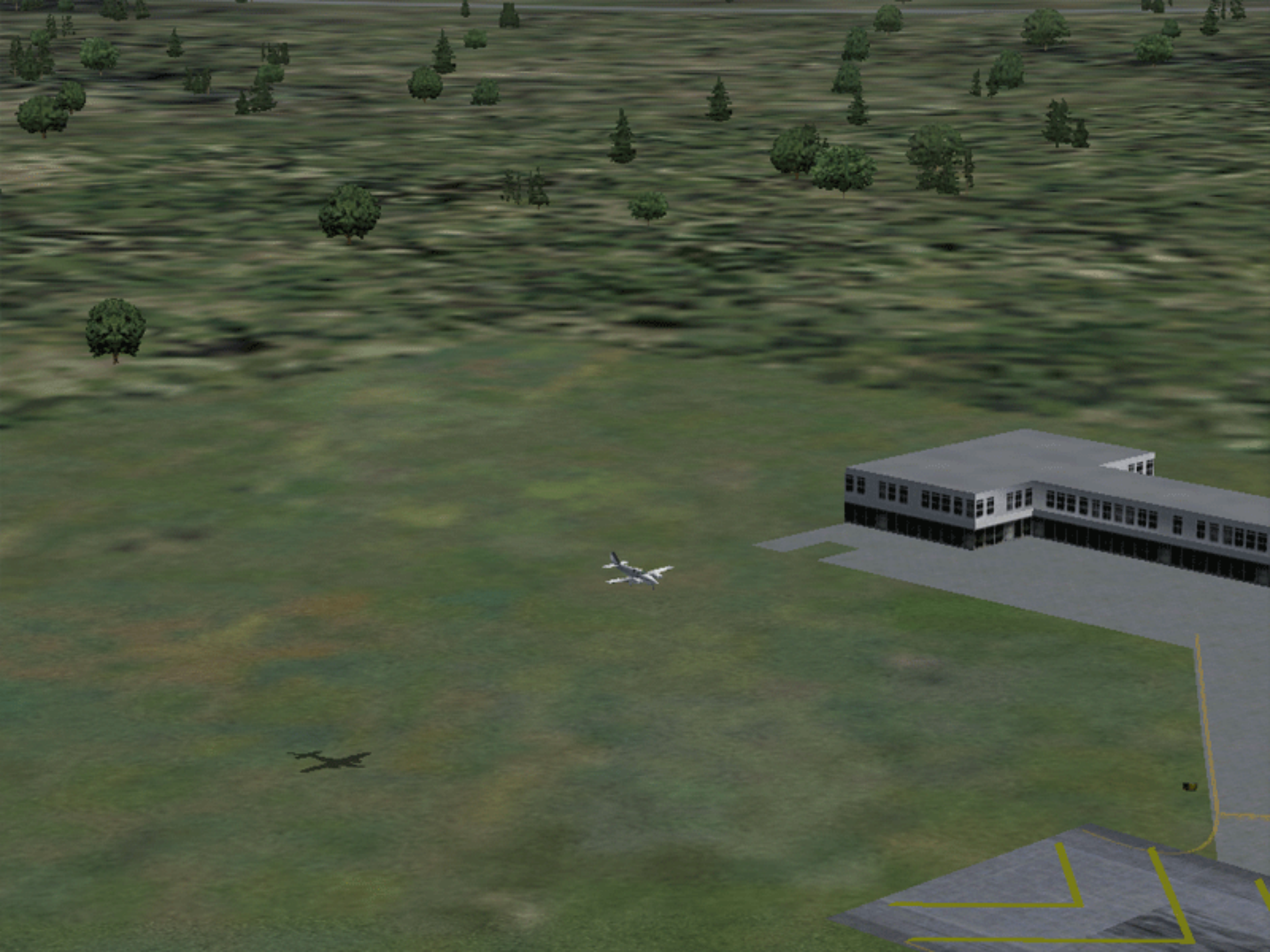


➤ Now we're on a 2 mile final.

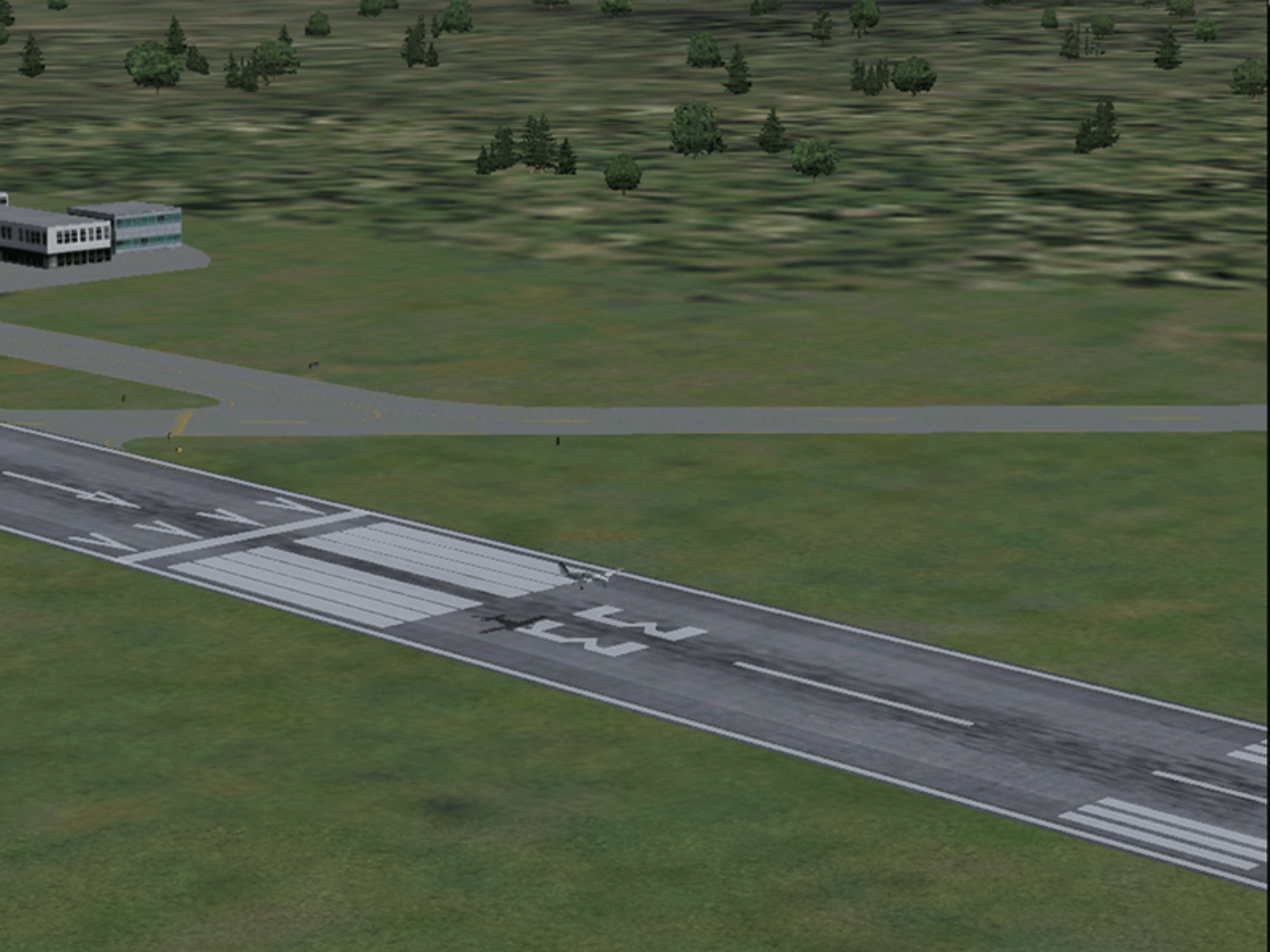
FlightMax EX500













AVIDYNE

BRT

PWR

KBTW

AIRPORT

FPL

Select  
Chart

Display  
Procedure

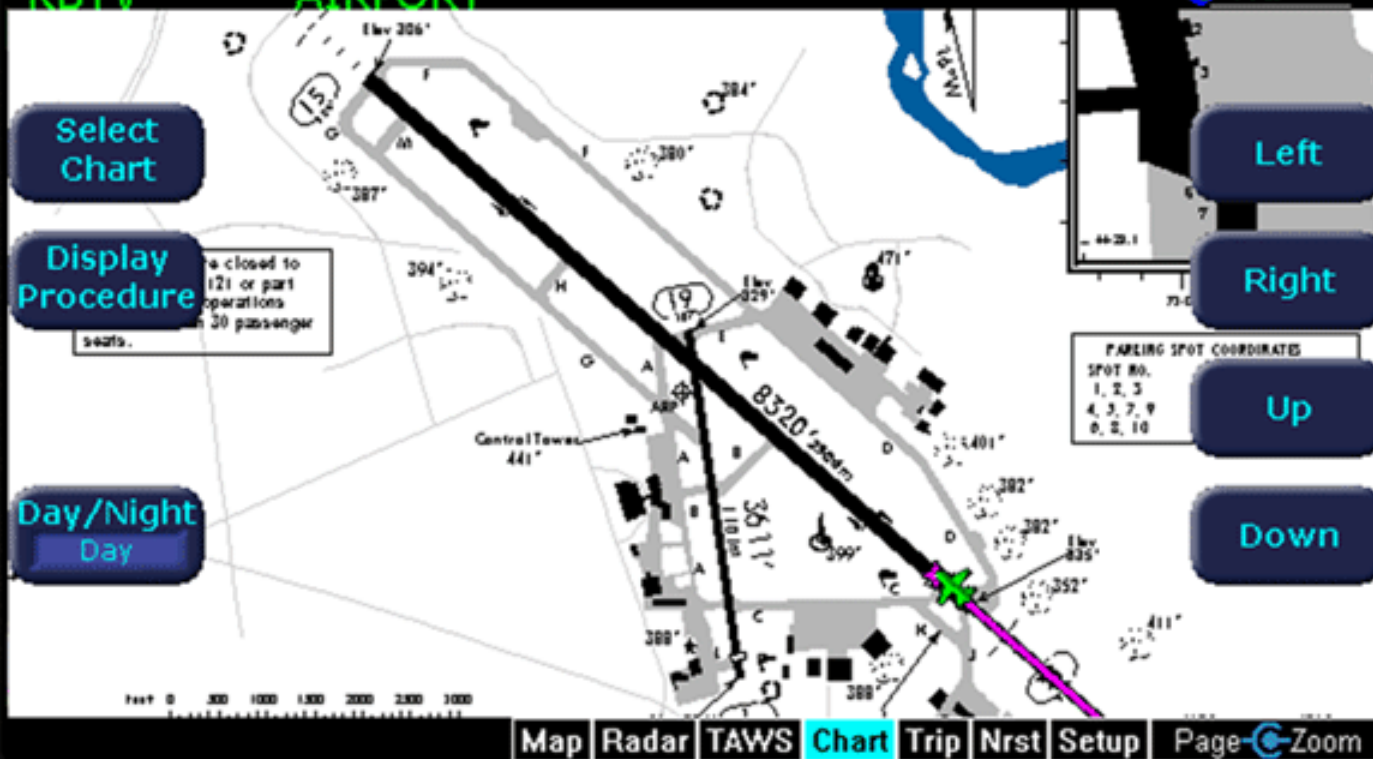
Day/Night  
Day

Left

Right

Up

Down



➤ As the airplane touches down, CMax™ automatically switches to the Airport diagram.

AVIDYNE

BRT

PWR

KBTW

AIRPORT

FPL

Select Chart

Display Procedure

Day/Night  
Day

Left

Right

Up

Down

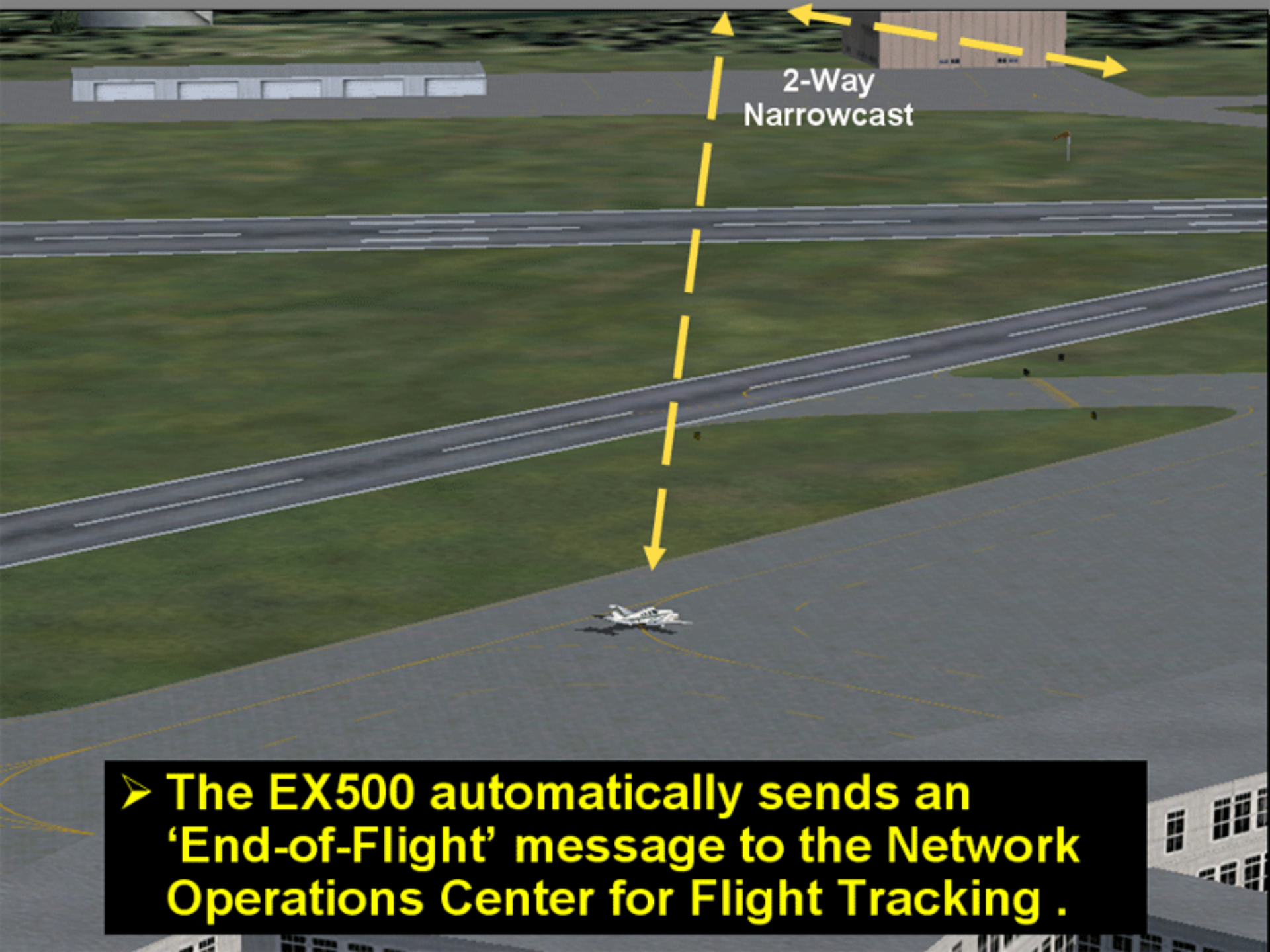
Control Tower  
441'

Map Radar TAWS Chart Trip Nrst Setup Page Zoom

FlightMax EX500

➤ ...for easy taxiing to the FBO.





2-Way  
Narrowcast

➤ The EX500 automatically sends an 'End-of-Flight' message to the Network Operations Center for Flight Tracking .



# FlightMax EX500 with MultiLink™ &



- **MultiLink optimizes data xfer between the ground and the aircraft**
  - High speed broadcast Weather updates
  - Two-way Text Messaging & Flight Tracking
  - Non-CONUS capability of Narrowcast
- **CMax Improves Situational Awareness**
  - **During taxi – Airport Diagrams**
    - Improves ground navigation
    - Reduces runway incursions
    - Especially valuable at unfamiliar airports
  - **During critical phases of flight**
    - Easily brief approach plates at destination or at alternate