MALIBU POWER & PROPELLER

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MALIBU POD RADAR REFERENCE GUIDE

A.R.T. Specifications: Antenna Size – 10" ● Beam Width – 10°

Beam Width

10nm = 10,000'~ (1.66nm)
20nm = 20,000'~ (3.33nm)
30nm = 30,000'~ (5.0nm)
60nm = 60,000'~ (10nm)

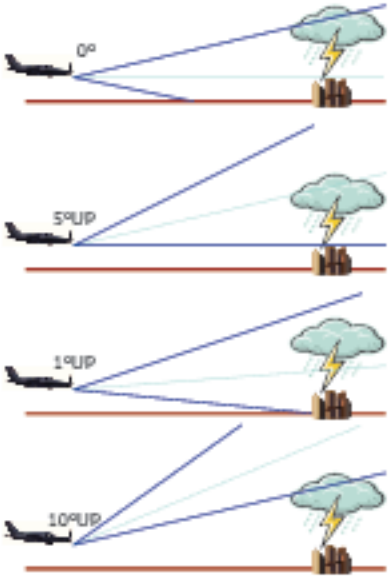
Antenna Tilt – (nm x 100 = ft./degree)

10nm ~ 1°=1,000'
20nm ~ 1°=2,000'
30nm ~ 1°=3,000'
60nm ~ 1°=6,000'

To Calibrate Radar Tilt Angle –

Altitude (AGL) = nm until ground return +5°
Example – 15,000'AGL @ 15nm until ground return, then add 5°UP
Once setting is determined, this is *Calibrated Zero Tilt* Angle
(see graphic example of calibration below)

Add 5° UP Tilt to the Calibrated Zero Tilt Angle to align the *Bottom of Beam Parallel to the Ground*. Use to identify if precipitation is above your altitude.



Normal Sweep Position – Cruise Flight

Bottom of Radar Beam should be angled 4° Down Toward the Earth

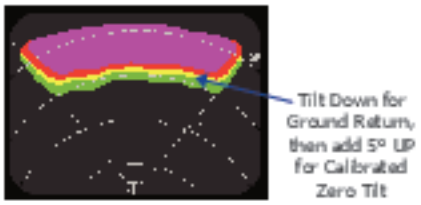
Height Evaluation Position – Terminal Areas

Center of Radar Beam Should be 10° UP (5 – 6 Sweeps at a time)
Any returns here should be Evaluated / Avoided

Weather Clues to Watch For –

If you see potential weather, ask these questions:

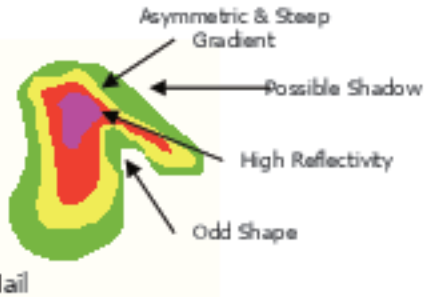
1. Is the local atmosphere unstable? (Convective?)
2. Is the Dew Point above 50°? (High Moisture Content)
3. Is the Temp/Dew Point Spread >30°? (Dry, Microbursts)
4. Is the Cell Movement >10kts? (Gusts are based on movement +30kts)
5. Is there Visible Evidence of a Hazard? (Lightning, Rain, Dark Clouds)
6. Is it the Southern Most Cell in a Line? (Highest Volatility Potential)



15nm @ 15,000'AGL
Radar Calibration

Things to Watch for on the Radar Screen:

1. Light Thundershowers are typically Round or Oval
2. Asymmetrical Gradients (& Steep Gradients) mean Strong Storms
3. Odd Shapes (Hooks, Bows, Pendants) are Strong Storms
4. Hourglass Shapes are Extremely Strong Storms
5. Missing U or V shaped areas mean Strong Storms
6. Pendant shapes pointing SW (narrow end) are particularly bad
7. Is it Casting a Shadow? (Never fly into a RADAR Shadow)
8. Is the Reflectivity Above 50dbz,(Red), or 57dbz,(Purple)?
9. Is the height above 15,000'? (Strong Storms)
10. Cells with Tops >10,000' Above the Freezing Level have Damaging Hail
11. Cells with Radar Tops >30,000' are Severe Storms, *STAY AWAY!*



For Training Purposes Only