Procedure Turns

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IFR approaches are designed with four segments:

Initial -> Intermediate -> Final -> Missed
The initial approaches feed the intermediate segment from the IAFs.

- Published NoPT routes
- Radar Vectors
- Procedure turns
- Other reversals

The different procedures accommodate arrivals from different directions and altitudes.
Published initial from REJOY

P. Turn from CCR
Protected airspace for a procedure turn.

1000’ clearance in primary area
Example intermediate segment - PT fix is FAF.

“Remain within 10nm”

Intermediate approach protection 500’ above obstacles.
The details of the procedure turn are at the pilot’s discretion.

Start at PT fix

Remain with 10° (5, 15) nm

Maneuver on the protected side

Speed <= 200 kts

Remain at or above the PT altitude until established on the intermediate course.
Three PTs at 180 knots- no wind.

Teardrop, 90/270 and “NOS” PTs.
Which PT to use?

Am I ready?

How much altitude needs to be lost?

Where’s the wind from?

Was my clearance delayed?
PT starts at ELP

Intermediate course has step-down at GIFEN

PT does NOT have to go outside GIFEN before the turn inbound!
GIFEN is a step-down on the intermediate course.
244(a)(3) When establishing a stepdown fix within an intermediate/initial segment underlying a PT area:
(a) Table 1A shall be applied.
(b) Only one stepdown fix is authorized within the intermediate segment that underlies the PT maneuvering area.
(c) The distance between the PT fix/facility and a stepdown fix underlying the PT area **shall not exceed 4 NM**.
(d) The MAXIMUM descent gradient from the IF point to the stepdown fix is 200 feet/NM. The MAXIMUM descent gradient from the stepdown fix to the FAF is 318 feet/NM.

It’s “an attractive nuisance”.  *(Wally Roberts)*
The PT must be performed within 10nm of SGI

It may be commenced prior to SEAPO!
Here a teardrop PT is mandatory.

There is no requirement to turn inbound outside 12 DME!

You should turn outside THERO.
Course reversal by holding entry mandatory here.

Protected template is smaller than PT - but size is not readily determined.

Respect holding pattern speed limits.