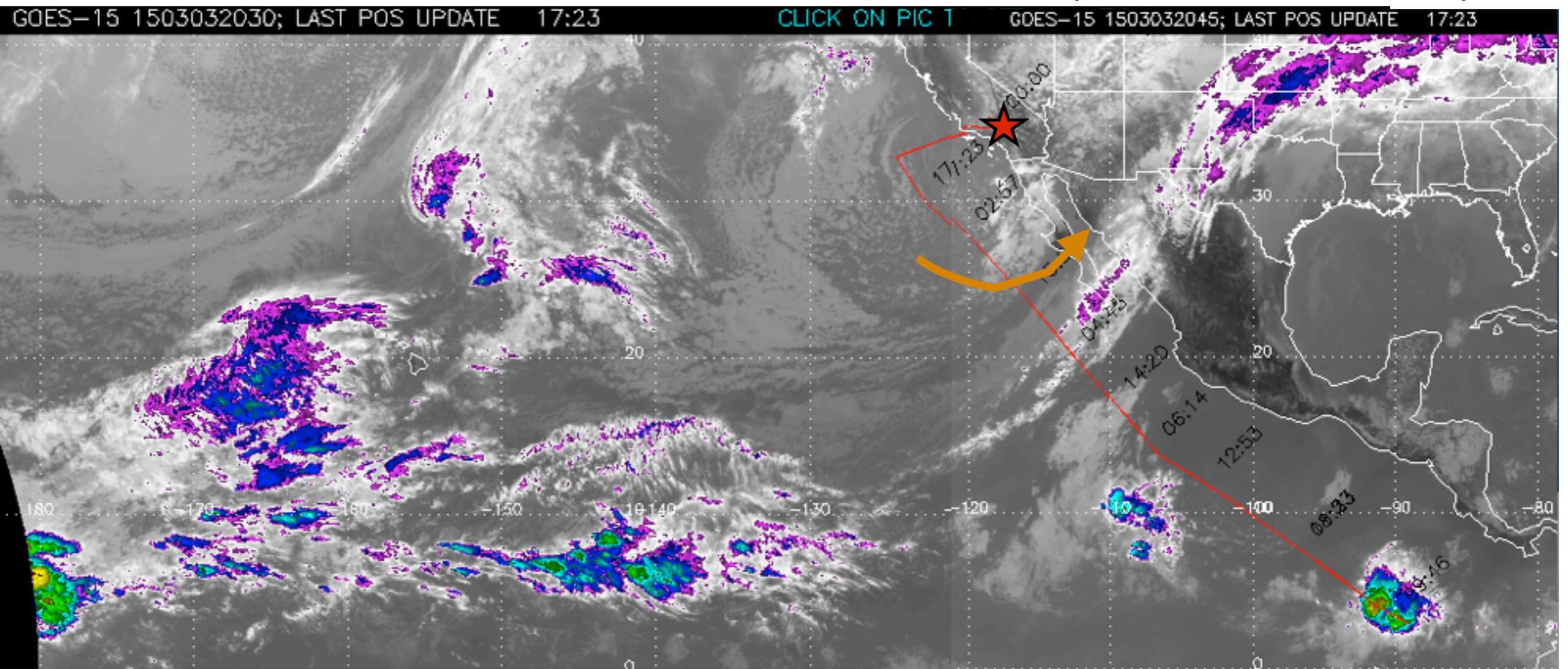


current condition:

satellite IR imagery on 2015-03-03, ~21 GMT
(03-03 Tue, ~1 PM)



- upper-level trough (that brought rain over Armstrong end of last week) has moved SE
- ridge develops over CA into the weekend (dry & warm), which flattens early next week as an upper-level trough moves towards CA from NE Pacific

metbrief: 2015-03-03

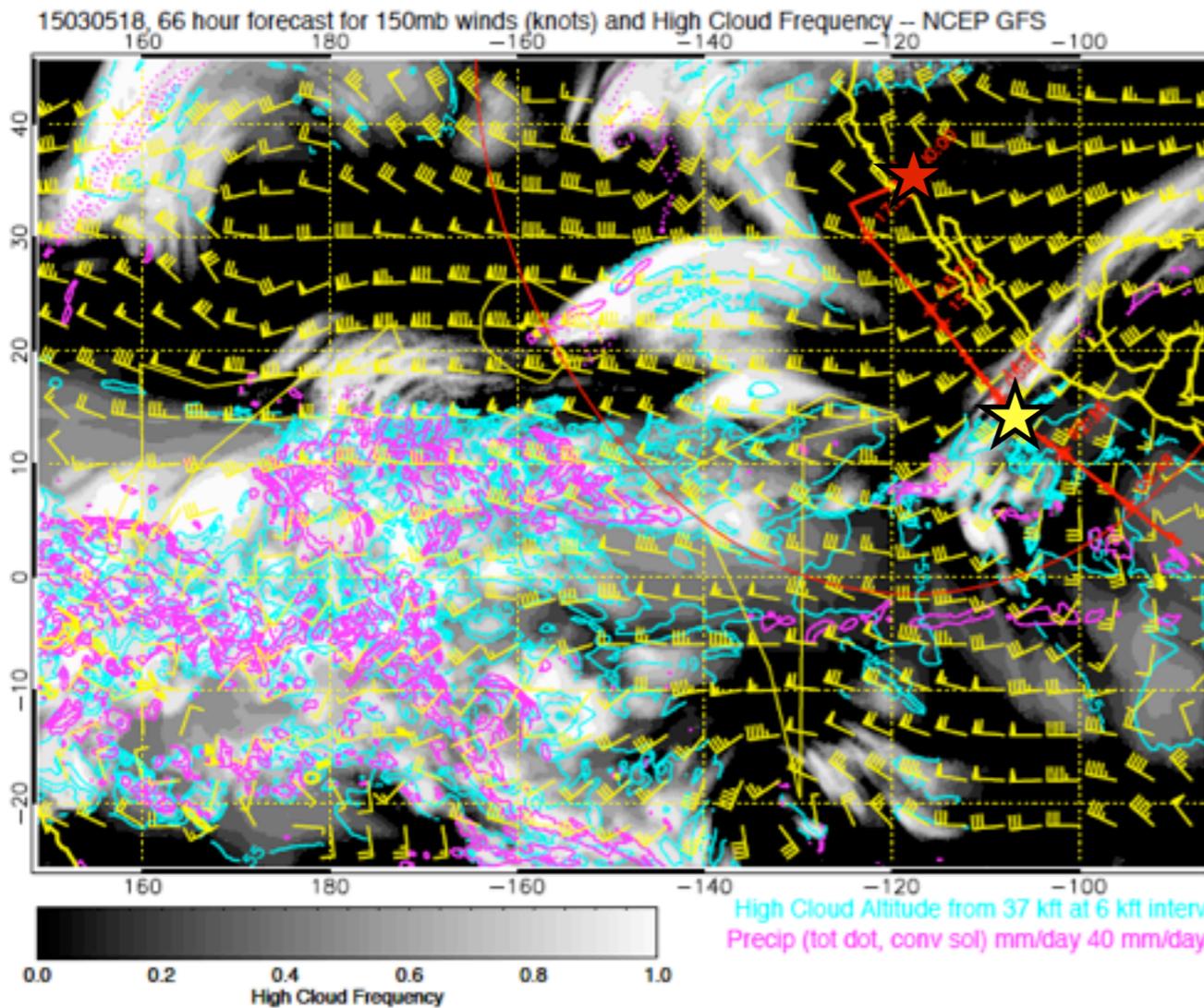
(next flight 2015-03-04 Wed)

- favorable takeoff and landing conditions

	wind	cld cover (base)	precip
Wed takeoff 04Z (08PM)	5 knot NE045	CLR, FEW	none
midflight 14Z (06AM)	few TTL cirrus at SE end of track; offshore low-level clouds to the west of flight track on return leg; onshore upper-level wind and some offshore low-level wind		
landing 00Z (04PM)	5-10 knot NE045	CLR, FEW	none
Thu takeoff 04Z (08PM)	5-10 knot NE045	CLR, FEW	none
midflight 14Z (06AM)	stronger offshore component of low-level winds		
landing 00Z (04PM)	5-10 knot NE045	CLR, FEW	none

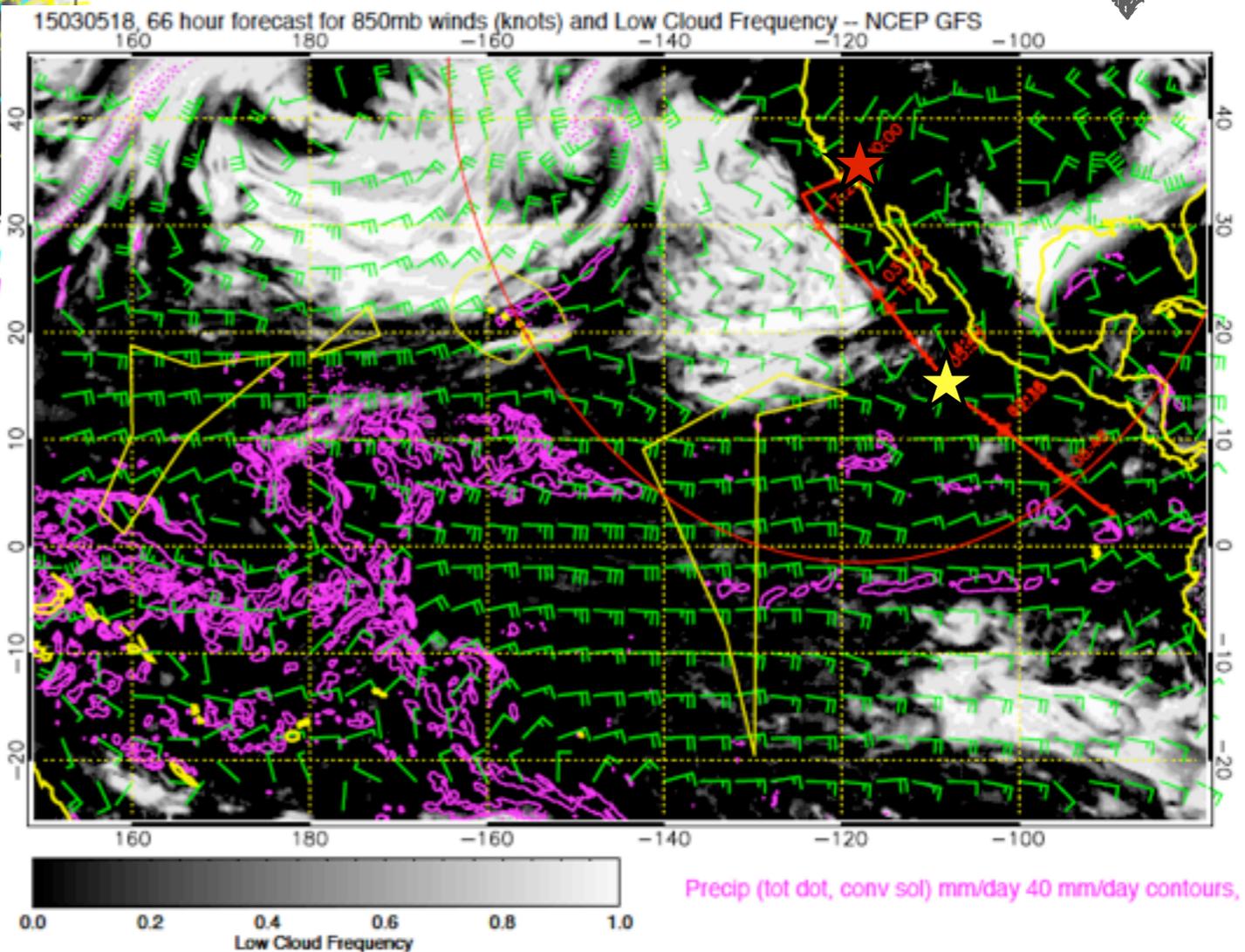
midflight condition (GFS):

high & low clouds on 2015-03-05, 18GMT
(03-05 Thu, 10AM)



← high clouds
(150 mb wind)

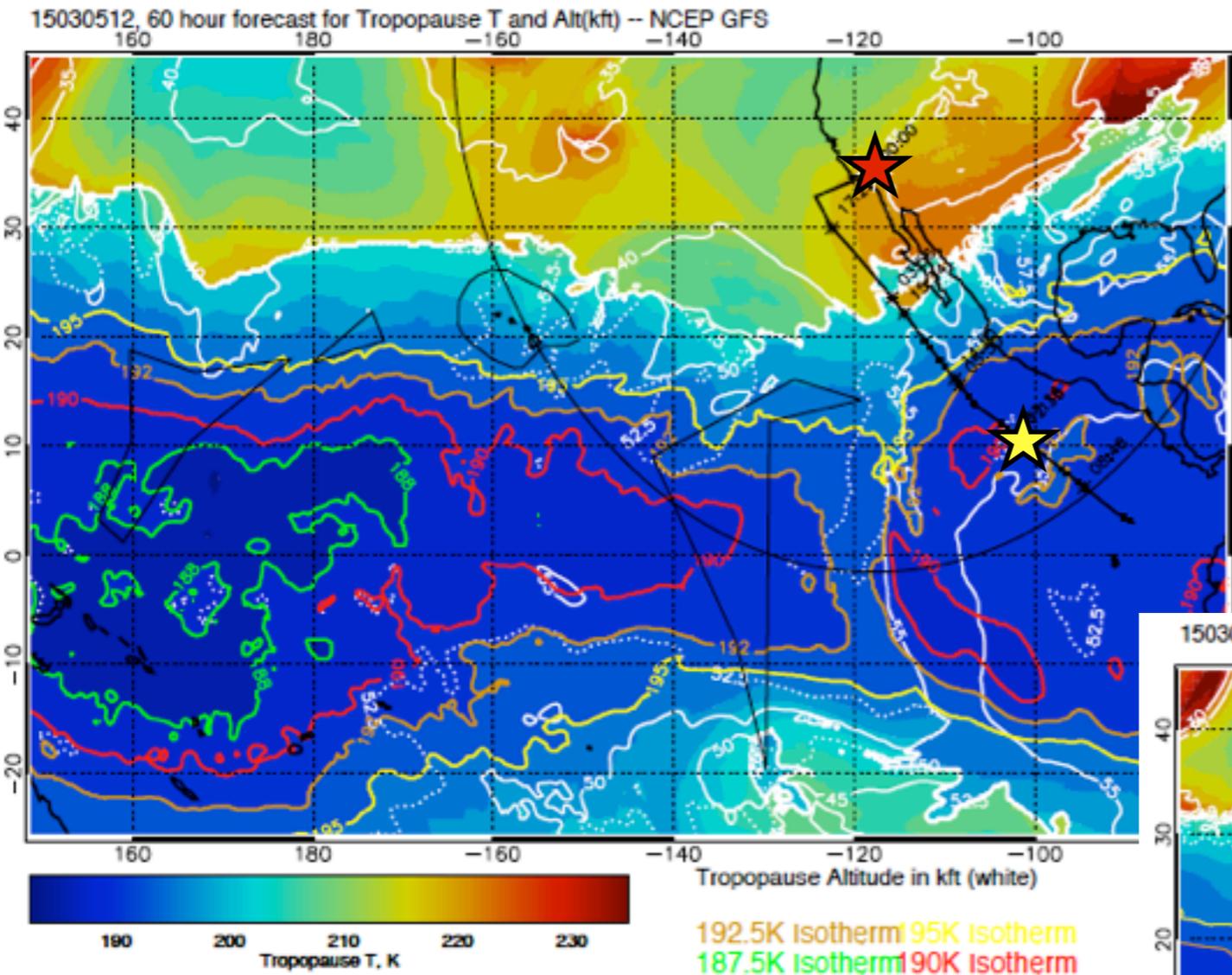
low clouds
(850 mb wind)



- onshore upper-level wind along Mexican coast with thin cirrus along the return leg
- low clouds expected to the west of the flight track north of ~20N (Baja)
- weak offshore low-level winds near Baja and Central America
- active convection in western Pacific; weaker, sporadic convection in eastern Pacific with some cirrus at SE end of flight track

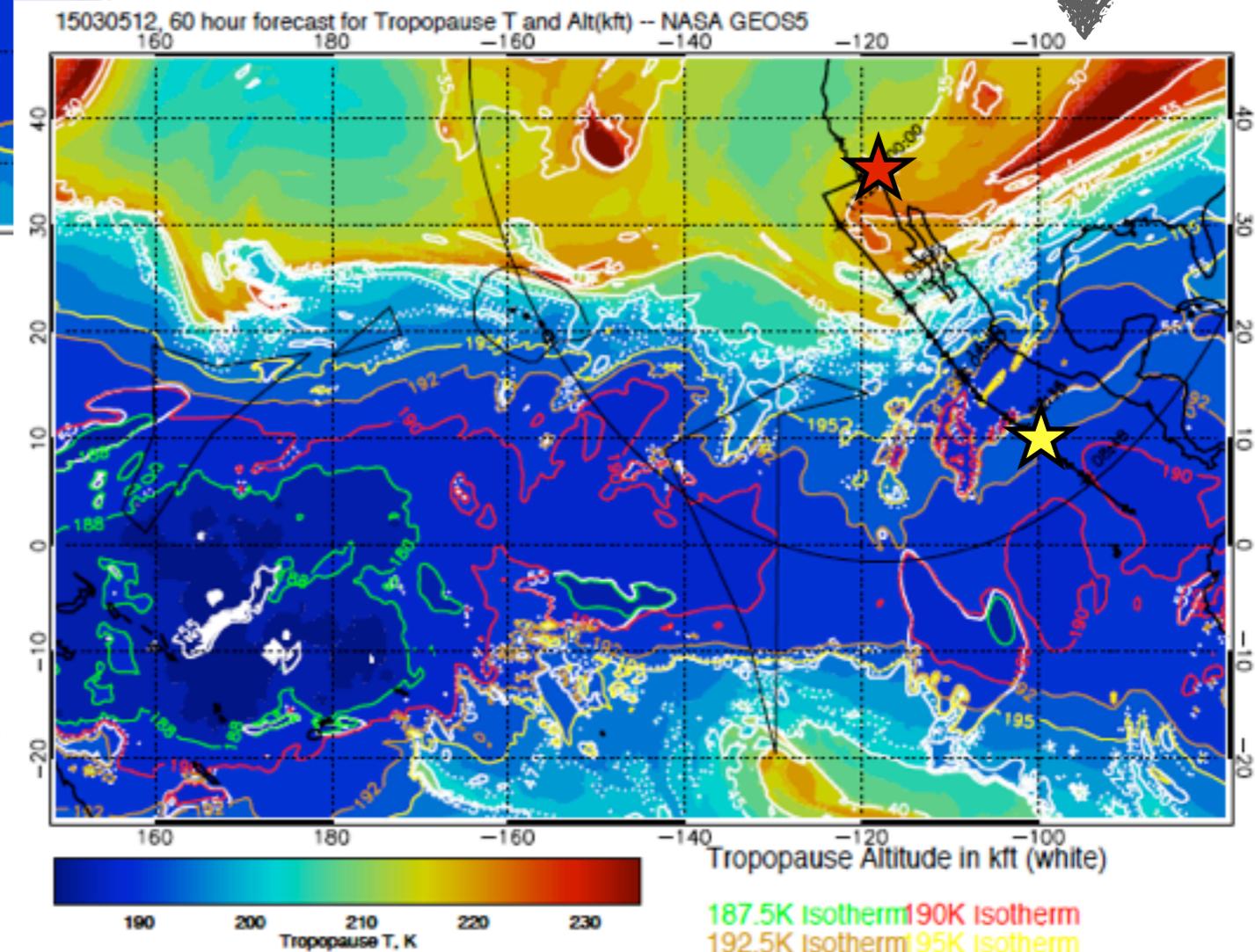
midflight condition (GFS vs. GEOS5):

Tropopause T on 2015-03-05, 12GMT
(03-05 Thu, 04AM)



GFS

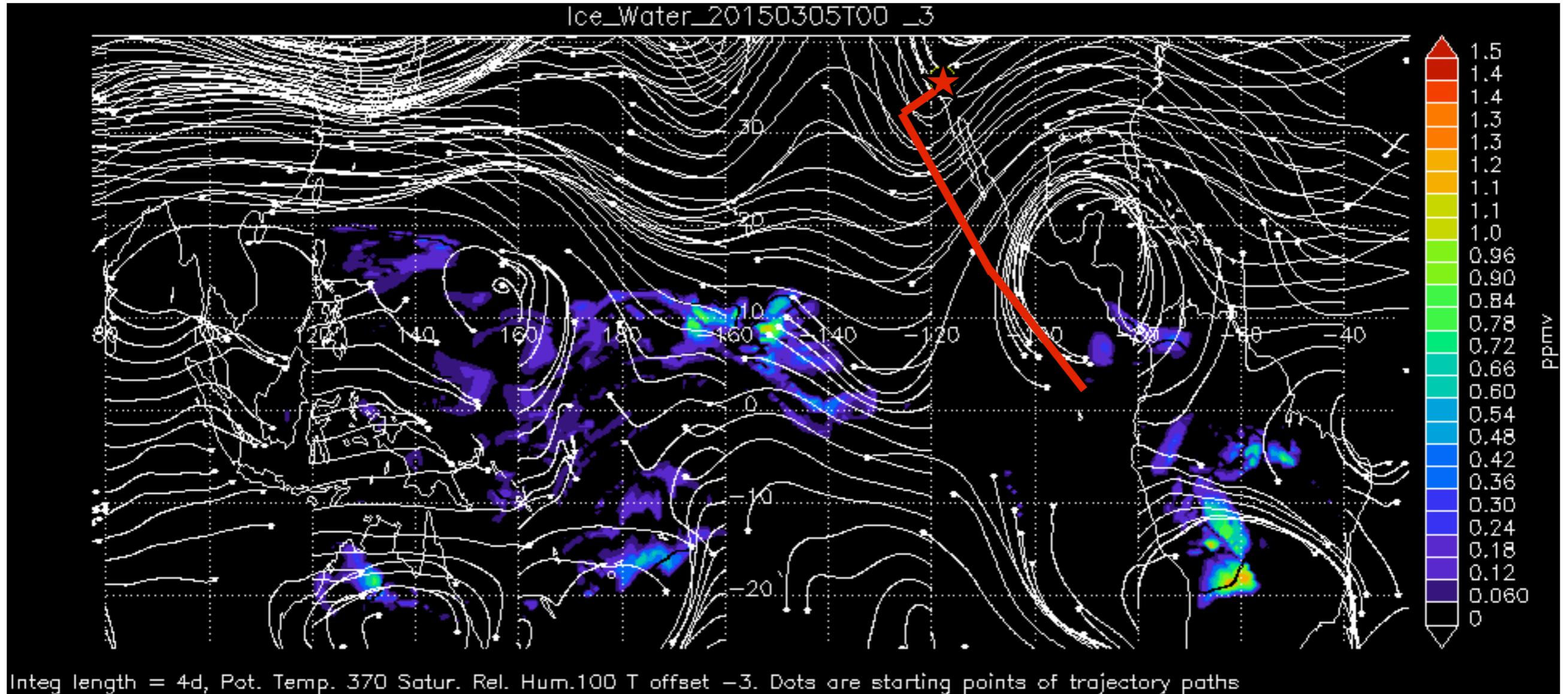
GEOS5



- cold T (< 187.5 K) over western Pacific; warmer (< 190 K) in the eastern Pacific
- qualitative agreement between GFS and GEOS5 (though eastern Pacific predicted to be colder in GEOS5 than GFS?)

condition before takeoff (M. Schoeberl):

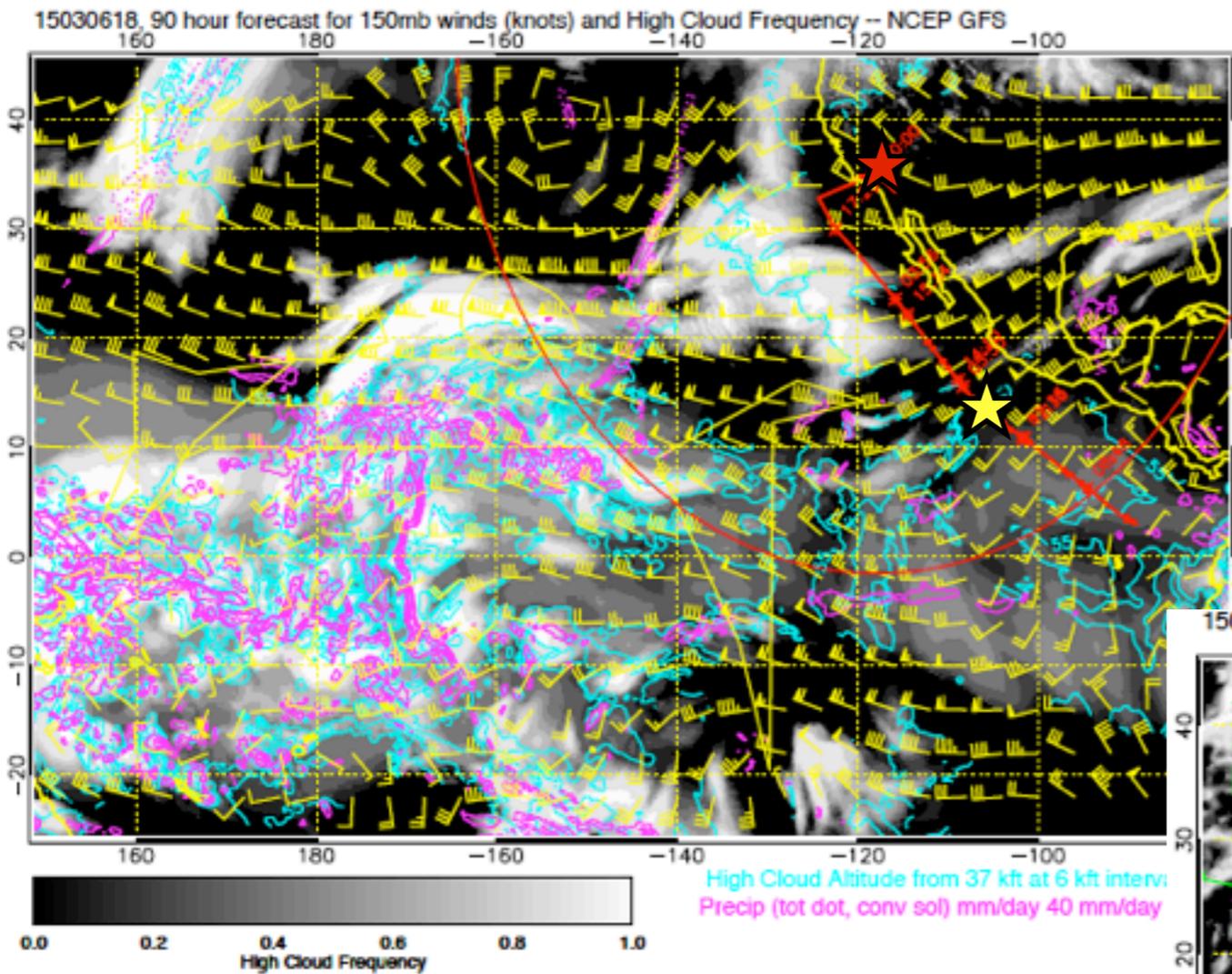
cloud ice water on 2015-03-05, 00GMT
(03-05 Thu, 04PM)



- most of the TTL cirrus to the west of 120W
- few TTL cirrus to the east

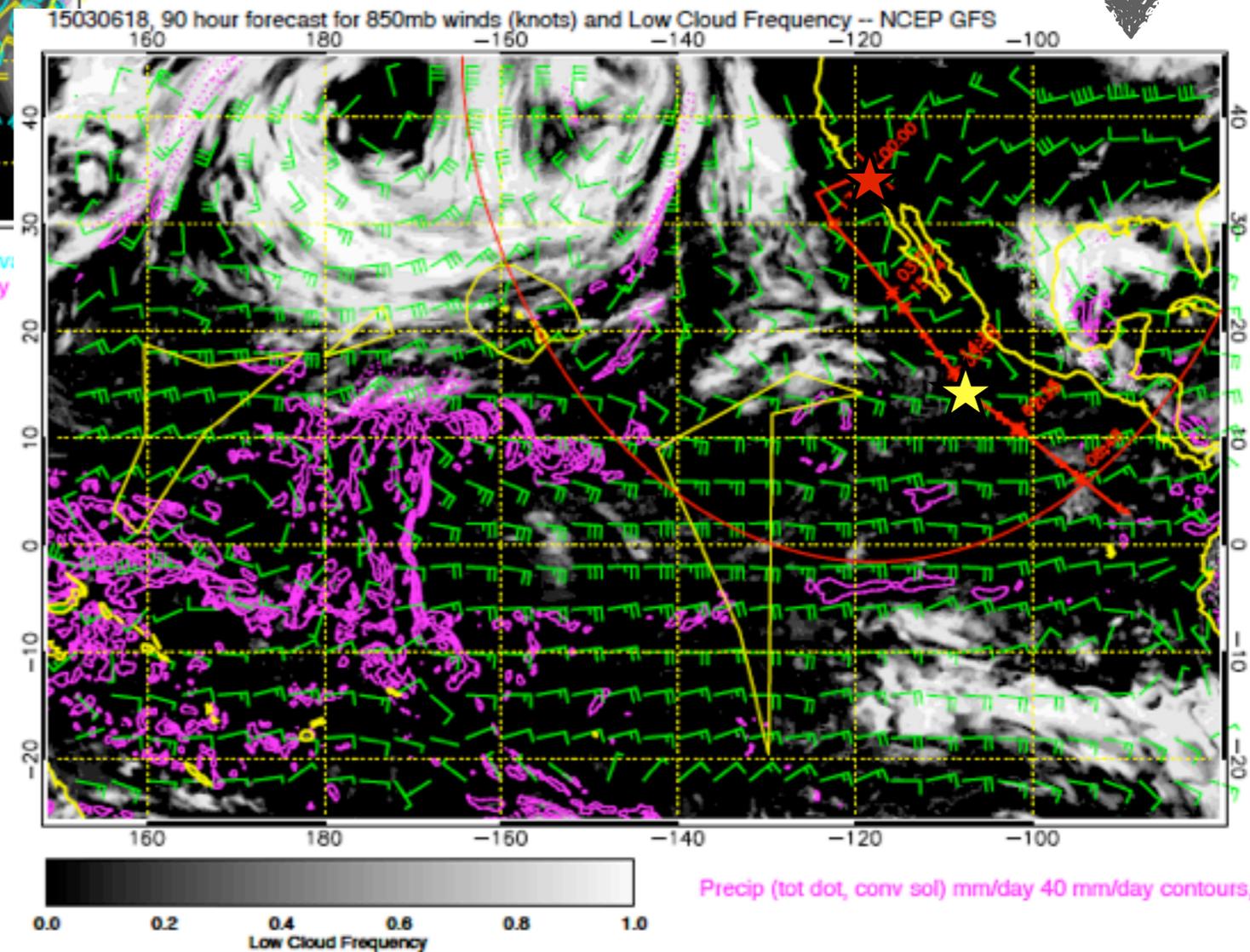
midflight condition (GFS):

high & low clouds on 2015-03-06, 18GMT
(03-06 Fri, 10AM)



← high clouds
(150 mb wind)

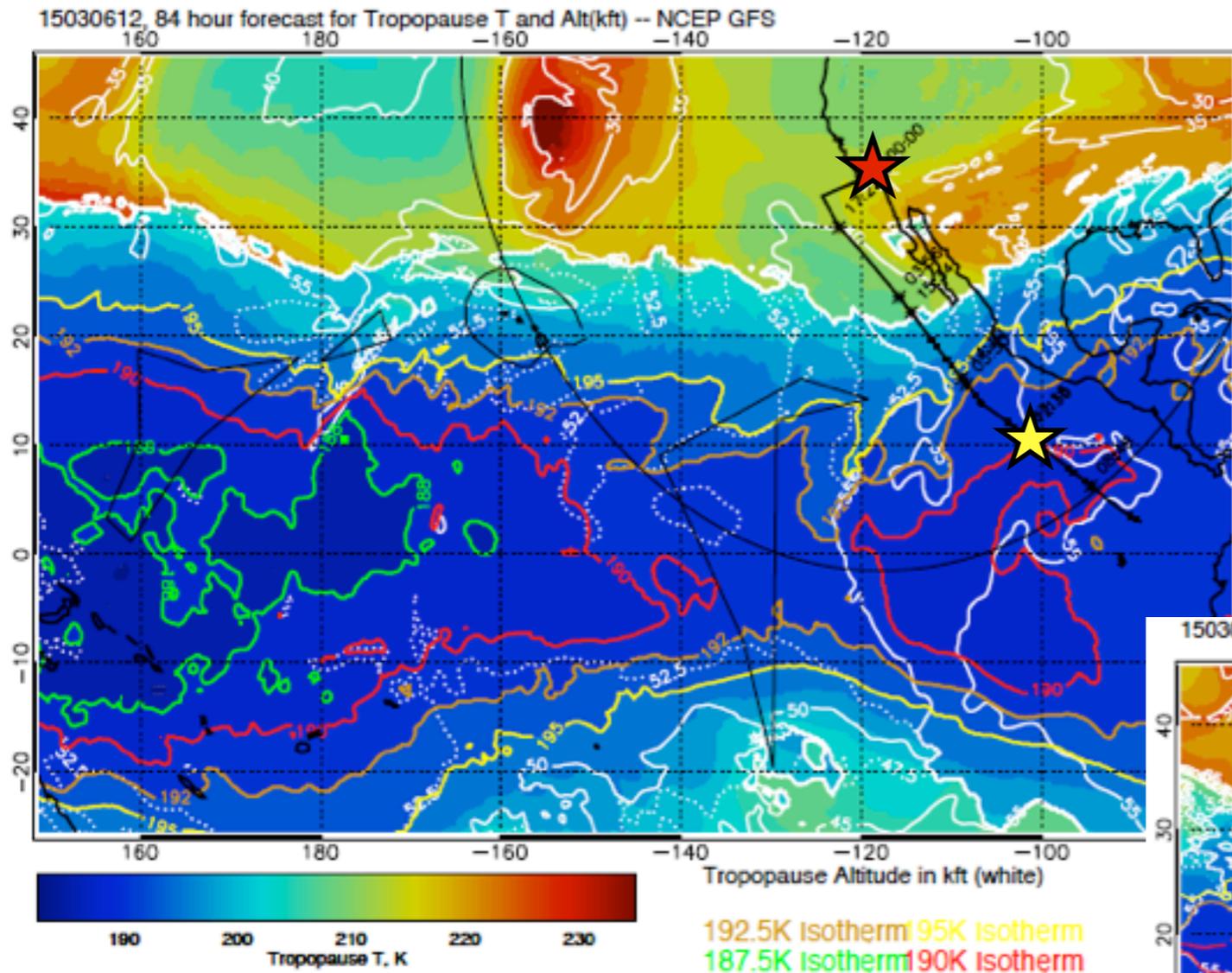
low clouds
(850 mb wind)



- upper-level SW winds transport high clouds closer to shore (hugs the coast by Sat morning)
- low-level clouds to the west of the flight track dissipate
- off-shore component of the low-level winds strengthen

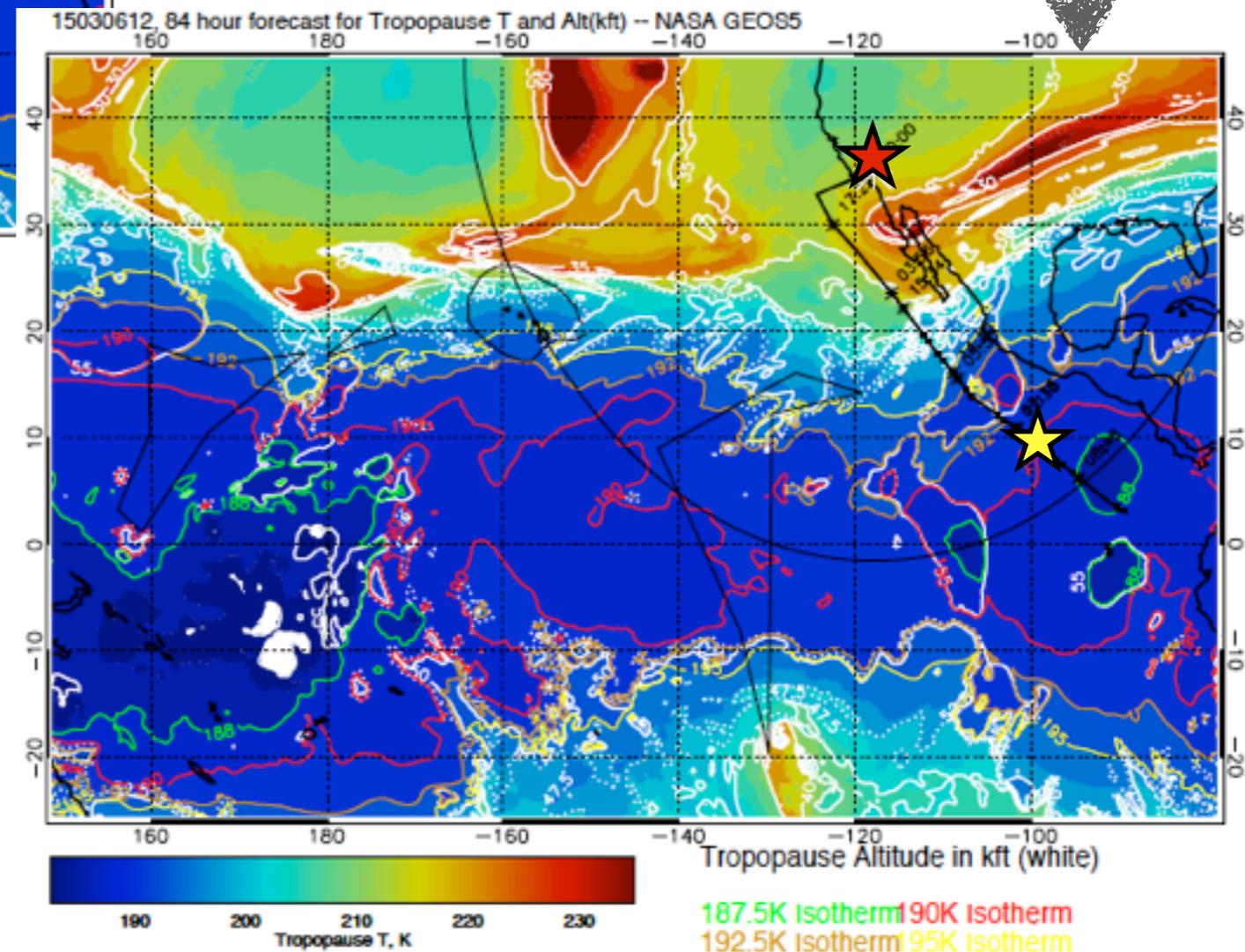
midflight condition (GFS vs. GEOS5):

Tropopause T on 2015-03-06, 12GMT
(03-06 Fri, 04AM)



GFS

GEOS5



- cooling of the eastern Pacific (through early next week)

2015-03-03 metbrief summary

- Good takeoff and landing conditions for Wed flight (also good for Thu flight)
- Current flight track (return leg) is generally cloud free, but low clouds to the west of the track north of Baja -- the closer the flight track to the coast, the better for GHOST
- Strong onshore wind at upper (150 mb) levels, weaker offshore winds at lower (850 mb) levels near Baja and Central America
- Weak and sporadic convection, $\leq 190\text{K}$ cold pool, and possible cirrus at SE end of flight track
 - Active convection, cold T, and TTL cirrus in western Pacific (west of $\sim 140\text{W}$) south of 10N
- Thu flight conditions are similar to Wed, but ...
 - more high clouds, fewer low clouds along return leg
 - stronger offshore low-level wind
 - colder tropopause T over eastern Pacific

Monday (3/9) flight outlook

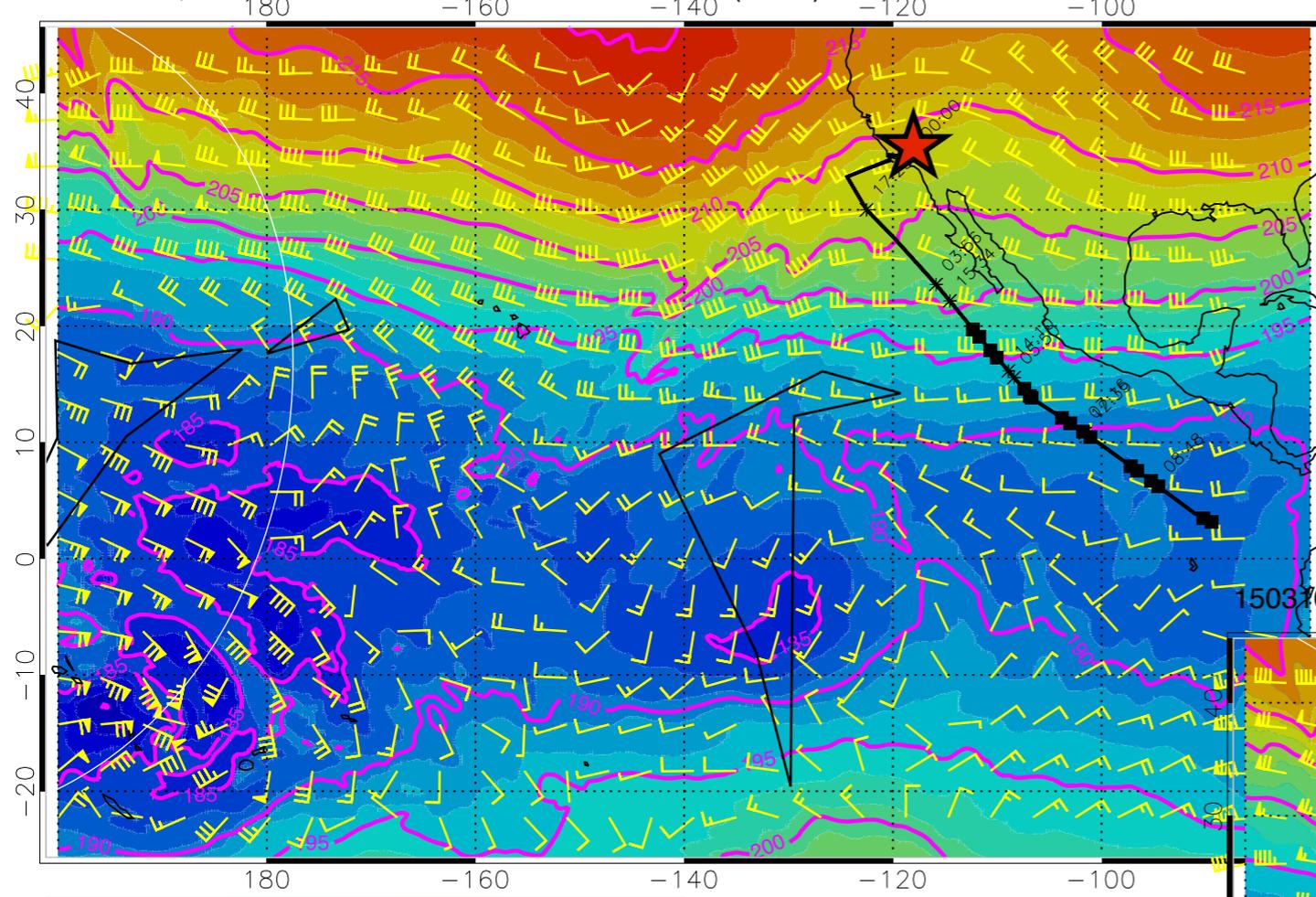
- Upper-level trough moves towards CA from NE Pacific (but still expected to be dry at Armstrong)
- Takeoff and landing conditions should be OK
- Cooling trend over the central-eastern Pacific

Monday flight condition (GEOS5 - 168 hr forecast):

85 mb and 100 mb T on 2015-03-10, 00GMT

(03-09 Mon, 04PM)

15031000, 168 hour forecast for 85mb T and winds (knots)- NASA GEOS5

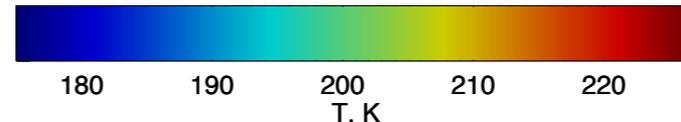
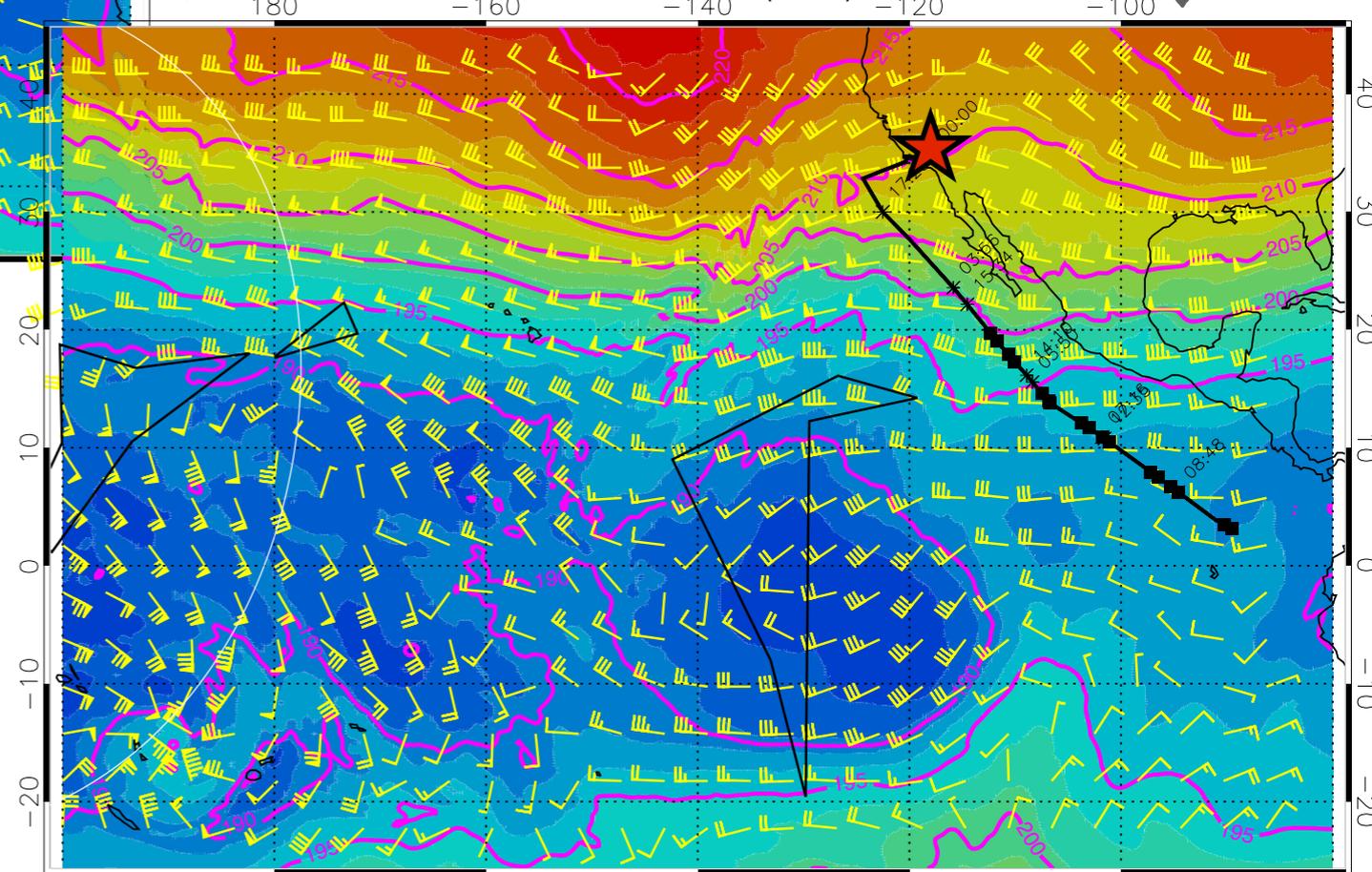


← 85 mb

100 mb



15031000, 168 hour forecast for 100mb T and winds (knots)- NASA GEOS5

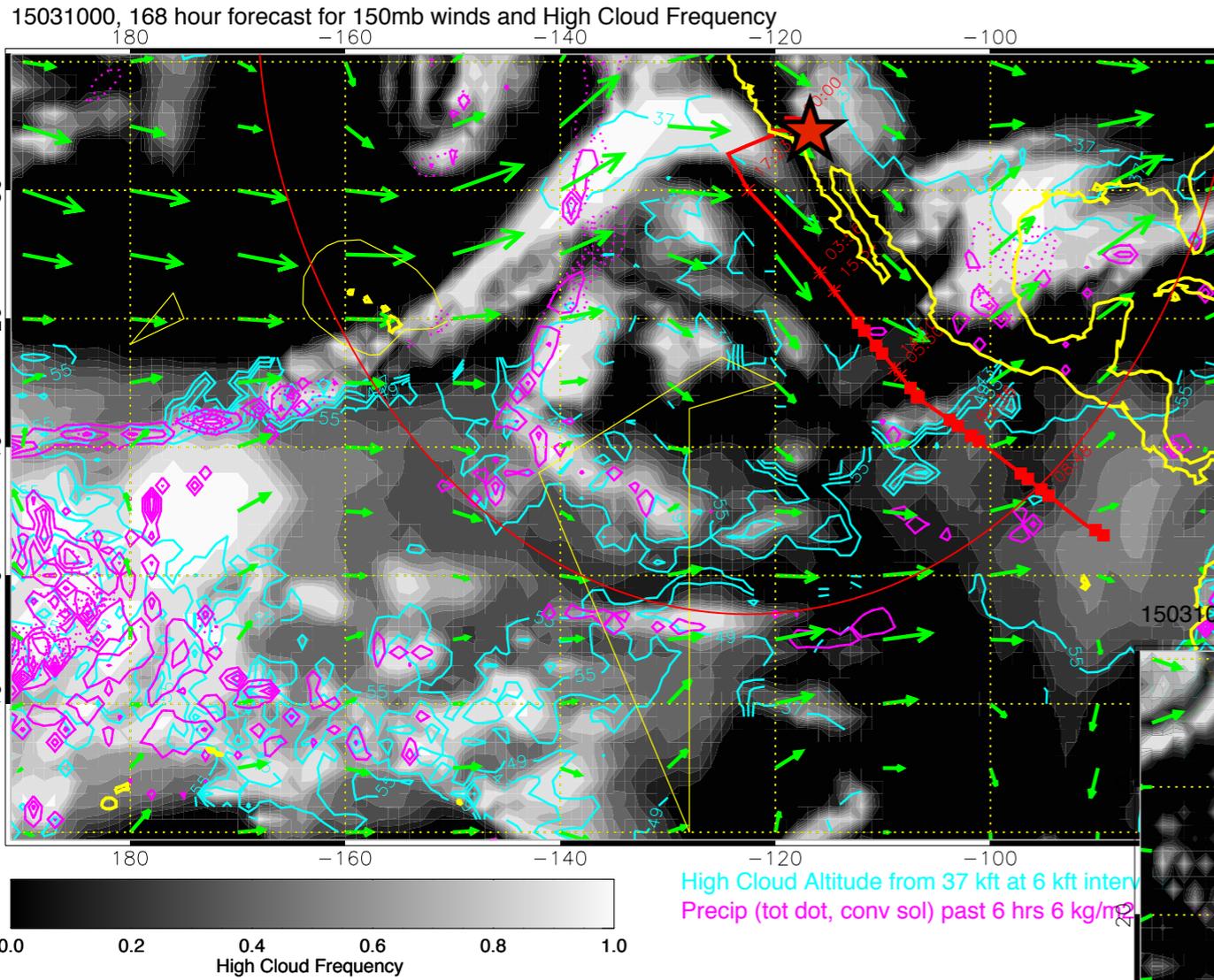


- colder than normal central-eastern Pacific (east of 150W)
- GFS shows similar cold pool centered on 130W at 70 mb level

Mon flight condition (GFS - 168 hr forecast):

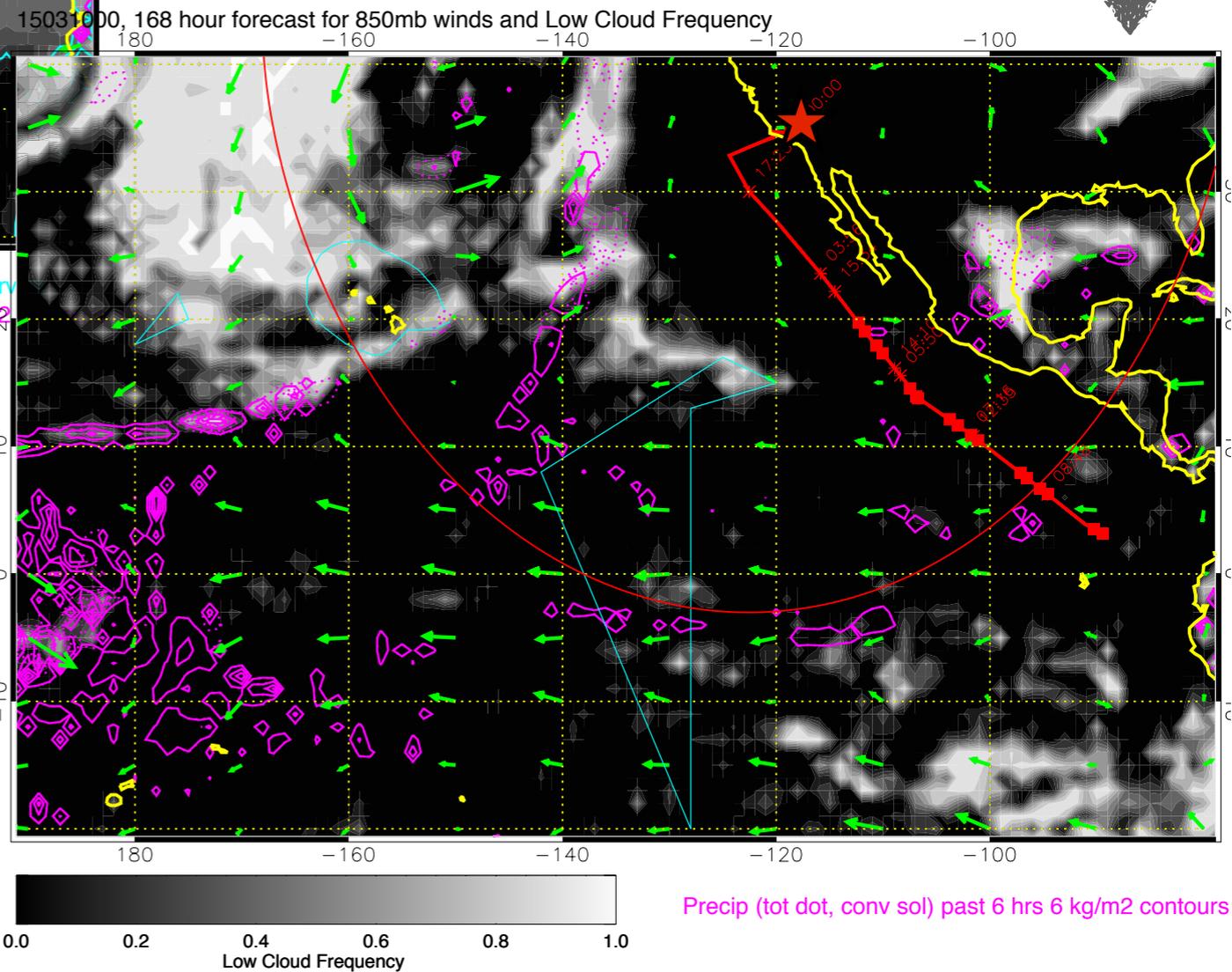
high & low clouds on 2015-03-10, 00GMT

(03-09 Mon, 04PM)



← high clouds
(150 mb wind)

low clouds
(850 mb wind)



- increased upper-level clouds and RH (not shown)
- free of low-level clouds along CA and Mexican coast