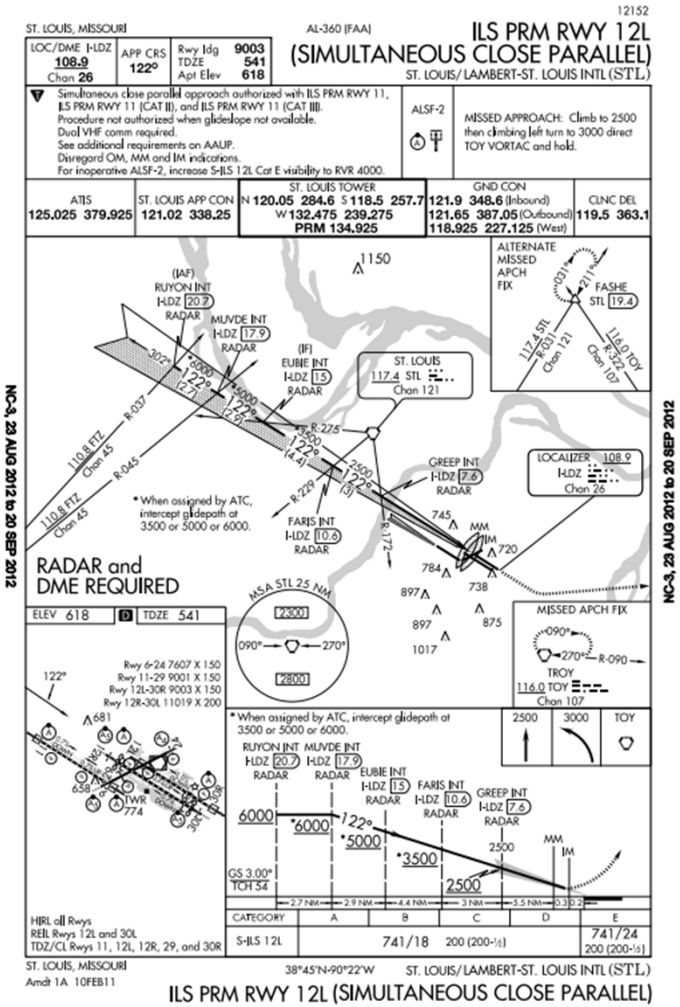
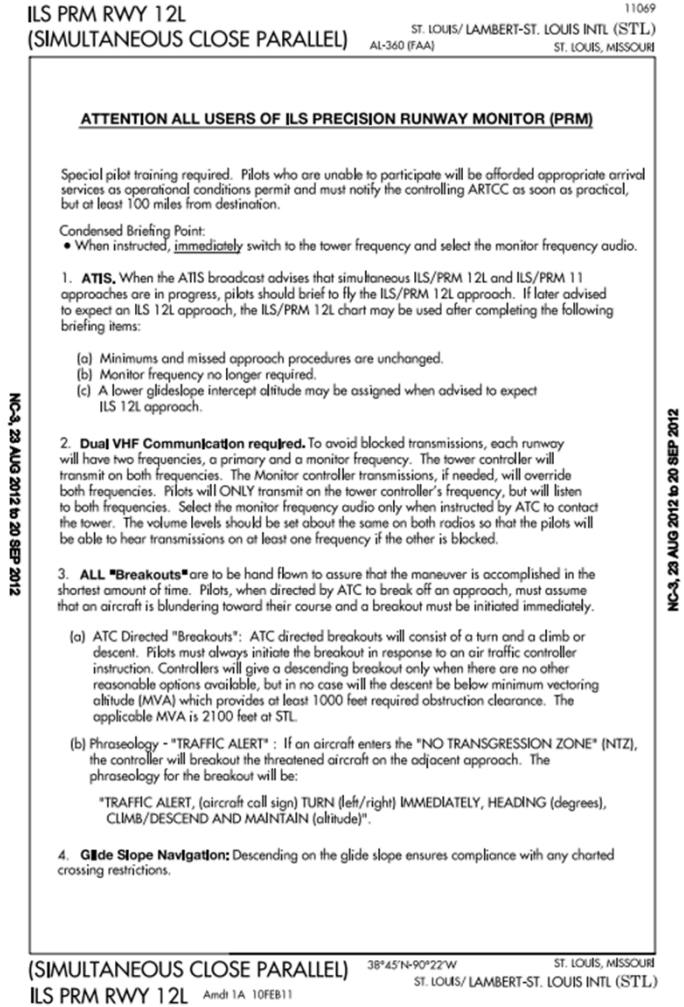
ACF 12-02

Simultaneous Close Parallel Approaches
–
Use of PRM/Newly Proposed AAUPs

Presentation 1 of 2

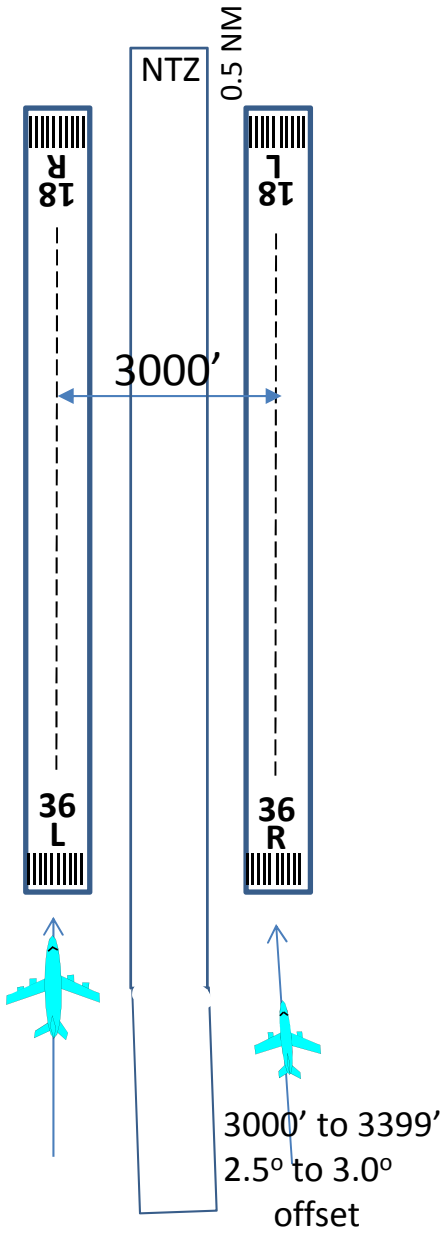
New Criteria for NTZ Monitoring of Closely Spaced Approaches
(Presently for airport elevations less than 1000’ MSL





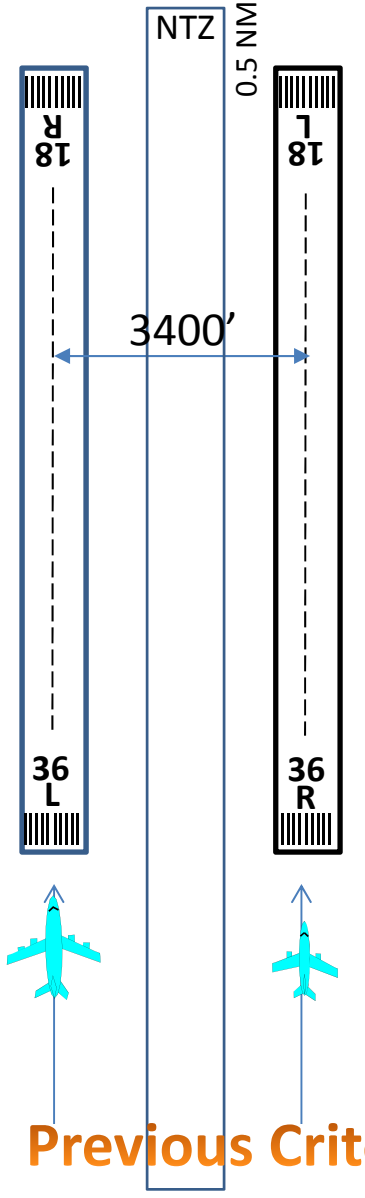
5−9−8. SIMULTANEOUS INDEPENDENT CLOSE PARALLEL APPROACHES – HIGH UPDATE RADAR

1.0 sec update rate required



ILS PRM 36L / ILS PRM 36R
SIMULTANEOUS CLOSE PARALLEL
ATTENTION ALL USERS PAGE (AAUP)
PRM frequency

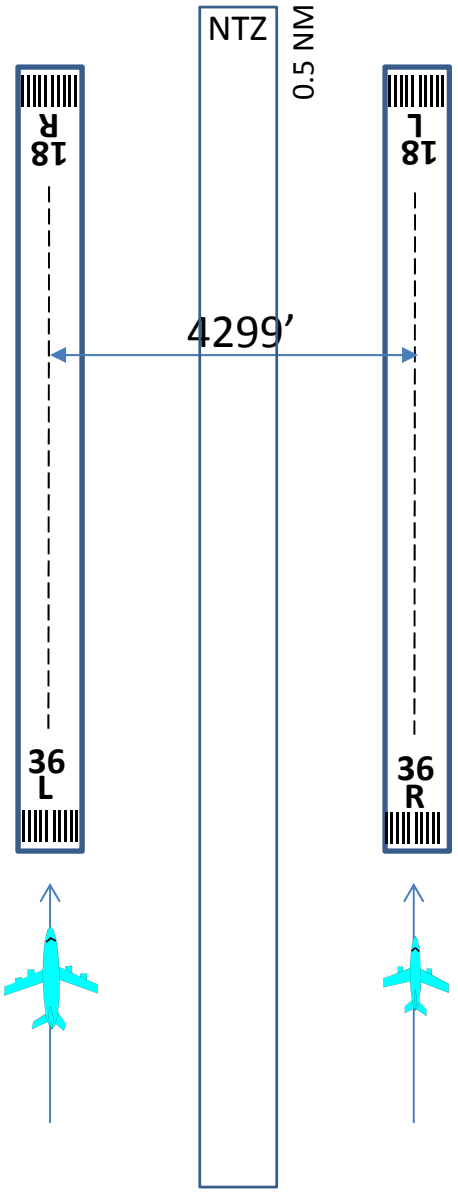
2.4 sec or faster
update rate required



Previous Criteria

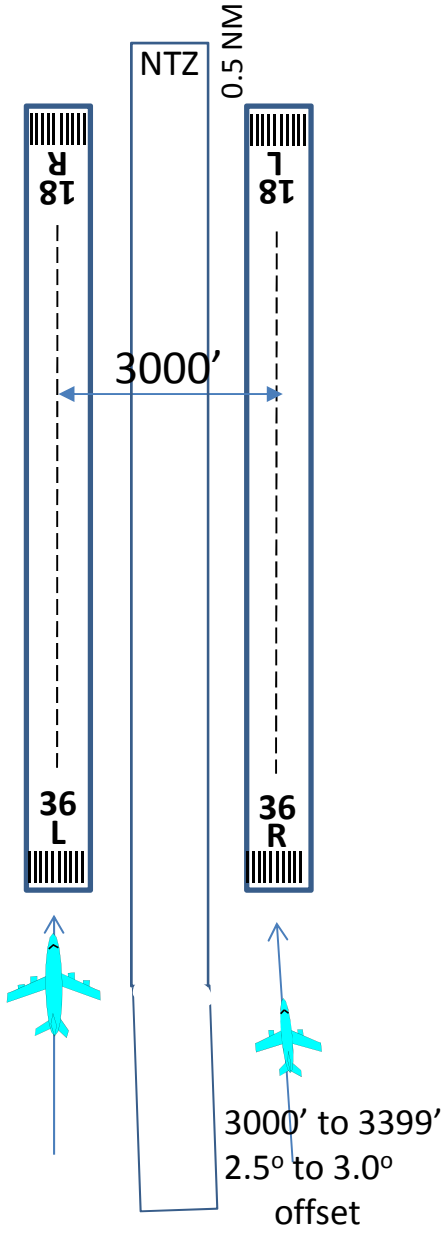
5−4−16. Simultaneous Close Parallel ILS PRM Approaches (Independent) and Simultaneous Offset Instrument Approaches (SOIA)

2.4 sec or faster
update rate required



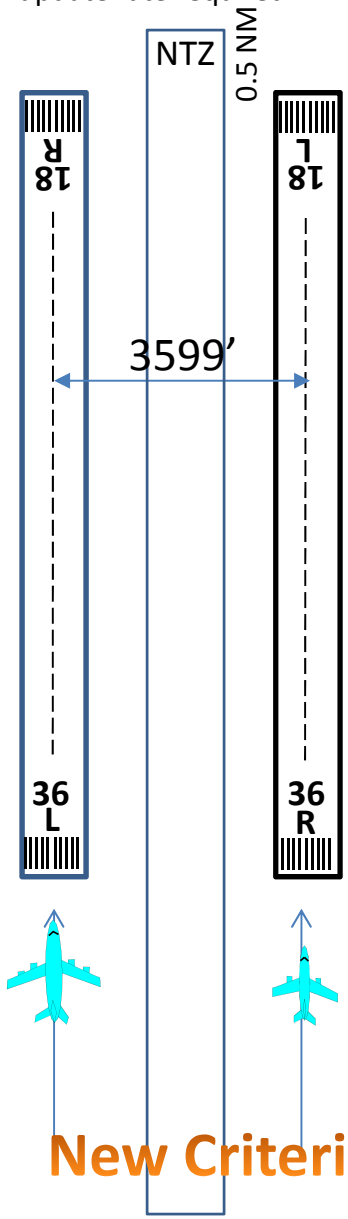
5−9−8. SIMULTANEOUS INDEPENDENT CLOSE PARALLEL APPROACHES – HIGH UPDATE RADAR

3000 to 3399’, 1.0 sec update rate required



ILS PRM 36L / ILS PRM 36R
SIMULTANEOUS CLOSE PARALLEL
ATTENTION ALL USERS PAGE (AAUP)
PRM frequency

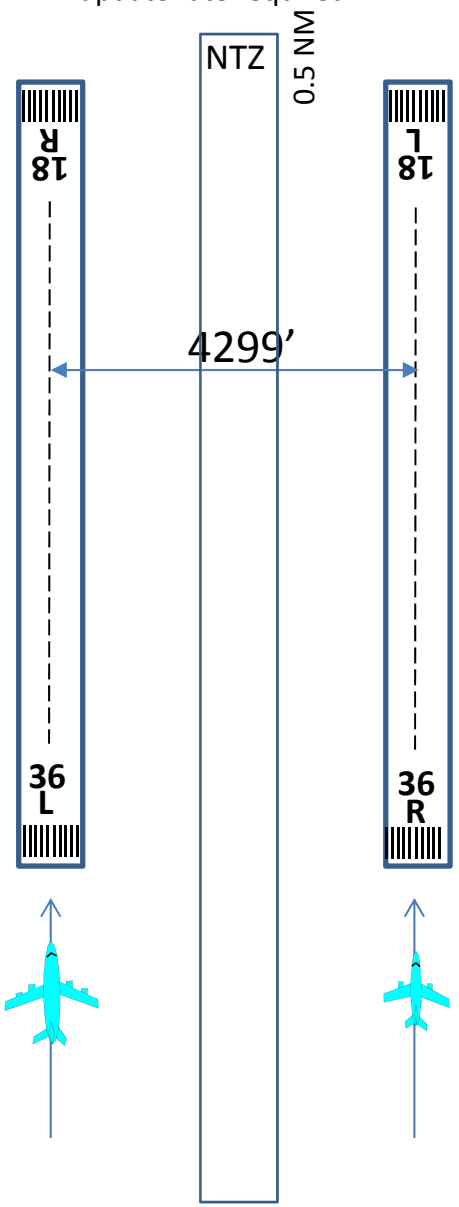
3400’ to 3599’ 2.4 sec or faster update rate required



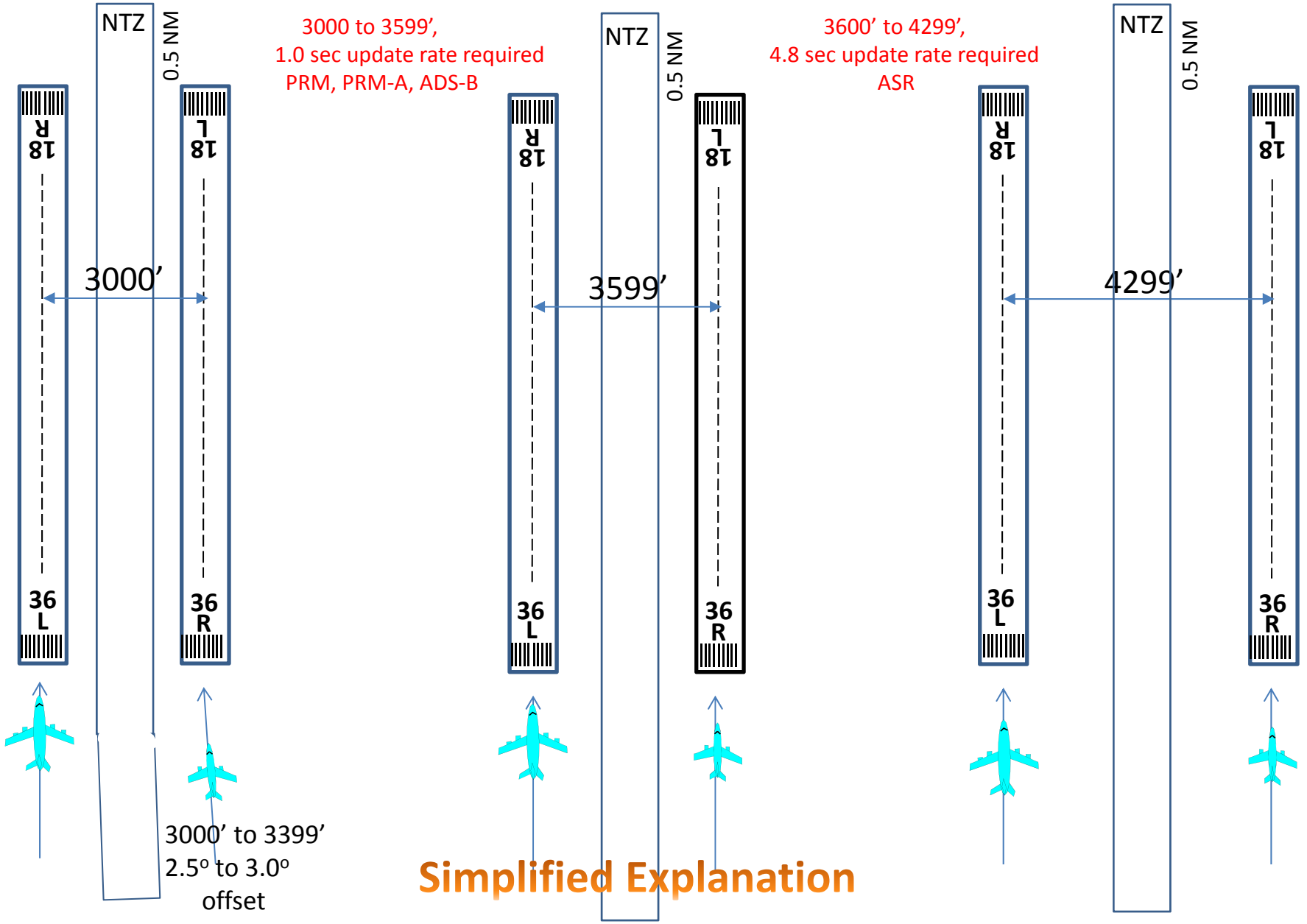
New Criteria

5−4−16. Simultaneous Close Parallel ILS PRM Approaches (Independent) and Simultaneous Offset Instrument Approaches (SOIA)

3600’ to 4299’, 4.8 sec or faster update rate required



ILS PRM 36L / ILS PRM 36R
SIMULTANEOUS CLOSE PARALLEL
ATTENTION ALL USERS PAGE (AAUP)
PRM frequency



Points to Remember for Simultaneous Close Parallel Operations

- Approaches with parallel runways spaced between 3000' and 4299'

are still identified on the approach charts as SIMULTANEOUS CLOSE PARALLEL and include "PRM" in the title (i.e., ILS PRM RWY xx or LDA PRM RWY xx for SOIA).

- <u>There are no changes to present pilot procedures for these approaches.</u>

- For dual, parallel runway spacing between 3600' and 4299', standard ATC **ASR** radar (4.8 second update rate) has now been approved for NTZ monitoring at airport elevations less than 1000' MSL.

- For dual, parallel runway spacing between 3000' and 3599', high update rate surveillance system (2.4 seconds to 3400' and 1 second below 3400') is required. Since the FAA presently does not have a 2.4-second update rate surveillance system, approaches to parallel runways less than 3599' require a PRM surveillance system or other 1-second update rate system.

- In the past, "PRM" in the approach name meant that a PRM surveillance system was providing the NTZ information to the controller. Under the new criteria, that may or may not be the case as it is dependent on the separation between the runways.

- Flight Standards continues to investigate the update rate required for NTZ monitoring for simultaneous close parallel approaches, based on runway spacing, approach course alignment, number of runways, and airport elevation. Further changes can be expected in the future.

Combined ILS PRM and RNAV GPS PRM AAUP

ILS PRM RWY 28L and RNAV (GPS) PRM RWY 28L **9/13/12** **SAN FRANCISCO INTL (SFO)**
(SIMULTANEOUS CLOSE PARALLEL) **San Francisco, California**

ATTENTION ALL USERS PAGE (AAUP)

Condensed Briefing Points:

- Listen to the PRM monitor (frequency 125.15) when communicating with the NORCAL approach control (frequency 135.65), no later than final approach course intercept.
- Expect to be switched to SFO tower (120.5) at NEPIC
- PRM monitor frequency may be de-selected after determining that the aircraft is on the tower frequency.

1. ATIS. When the ATIS broadcast advises that simultaneous ILS PRM or RNAV (GPS) PRM Rwy 28L and LDA PRM or RNAV (GPS) PRM X Rwy 28R approaches are in progress, pilots should brief to fly the ILS PRM or RNAV (GPS) PRM Rwy 28L approach. If later advised to expect an ILS or RNAV (GPS) 28L Rwy 28L approach, the ILS PRM or RNAV (GPS) PRM Rwy 28L chart may be used after completing the following briefing items:

a. Minimums and missed approach procedures are unchanged.
b. Monitor frequency no longer required.
c. A different glidespath intercept altitude may be assigned when advised to expect ILS or RNAV (GPS) Rwy 28L approach.

Simultaneous parallel approaches will only be offered/conducted when the weather is at least 1600 feet (ceiling) and 4 miles (visibility).

2. Dual VHF Communication required. To avoid blocked transmissions, each runway will have two frequencies, a primary and a PRM monitor frequency. The NORCAL approach controller will transmit on both frequencies. The PRM Monitor controller's transmissions, if needed, will override both frequencies. Pilots will ONLY transmit on the approach controller's frequency (135.65), but will listen to both frequencies. Select the PRM monitor frequency audio only when in contact with the NORCAL approach controller (135.65). The volume levels should be set about the same on both radios so that the pilots will be able to hear transmissions on at least one frequency if the other is blocked. The PRM monitor frequency may be de-selected passing NEPIC.

3. All "Breakouts" are to be hand flown to assure that the maneuver is accomplished in the shortest amount of time. Pilots, when directed by ATC to break off an approach, must assume that an aircraft is blundering toward their course and a breakout must be initiated immediately.

a. **ATC Directed "Breakouts:"** ATC directed breakouts will consist of a turn and a climb or descent. Pilots must always initiate the breakout in response to an air traffic controller instruction. Controllers will give a descending breakout only when there are no other reasonable options available, but in no case will the descent be below minimum vectoring altitude (MVA) which provides at least 1,000 feet required obstruction clearance.

b. **Phraseology - "TRAFFIC ALERT:"** If an aircraft enters the "NO TRANSGRESSION ZONE (NTZ)," the controller will breakout the threatened aircraft on the adjacent approach. The phraseology for the breakout will be:

"TRAFFIC ALERT, (aircraft call sign) TURN (left/right) IMMEDIATELY, HEADING (degrees), CLIMB/DESCEND AND MAINTAIN (altitude)".

4. Glidepath Navigation: Descending on (not above) the glidepath ensures compliance with any charted crossing restrictions and assists traffic approaching runway 28R to mitigate possible wake turbulence encounters without destabilizing the runway 28R approach and creating a go-around.

5. Runway 28R traffic. While conducting this ILS PRM or RNAV (GPS) PRM approach to runway 28L, other aircraft may be conducting the offset LDA PRM or RNAV (GPS) PRM X approach to runway 28R. These aircraft will approach from the right-rear and will re-align with runway 28R after making visual contact with the ILS or RNAV GPS runway 28L traffic.

Special pilot training required. Pilots who are unable to participate will be afforded appropriate arrival services as operational conditions permit and must notify the controlling ARTCC as soon as practical, but at least 100 miles from destination.

(SIMULTANEOUS CLOSE PARALLEL) **San Francisco, California**
ILS PRM RWY 28L and RNAV (GPS) PRM RWY 28L **SAN FRANCISCO INTL (SFO)**

Combined LDA PRM and RNAV GPS PRM AAUP

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LDA PRM RWY 28R and RNAV (GPS) PRM X RWY 28R **SAN FRANCISCO INTL (SFO)**
(SIMULTANEOUS CLOSE PARALLEL) **San Francisco, California**

ATTENTION ALL USERS PAGE (AAUP)

Condensed Briefing Points:

- If required, develop a wake mitigation strategy as soon as practical. After passing DARNE, pilots will be operating in close proximity to the ILS 28L aircraft and will be responsible for wake turbulence avoidance.
- Listen to the PRM monitor (frequency 127.675) when communicating with the NORCAL approach control (frequency 120.35), no later than LOC intercept.
- Report the ILS traffic in sight as soon as practical and prior to DARNE. DO NOT PASS.
- Remain on the LDA until passing DARNE so as not to penetrate the NTZ
- Expect to be switched to SFO tower (120.5) at DARNE (I-FNP 4.0 DME).
- PRM monitor frequency may be de-selected after determining that the aircraft is on the tower frequency.

1. ATIS. When the ATIS broadcast advises that simultaneous ILS PRM or RNAV (GPS) PRM Rwy 28L and LDA PRM or RNAV (GPS) PRM X Rwy 28R approaches are in progress, pilots should brief to fly the LDA PRM or RNAV (GPS) PRM X Rwy 28R approach. If later advised to expect an LDA DME or RNAV (GPS) Rwy 28R approach, the LDA PRM or RNAV (GPS) PRM X Rwy 28R chart may be used after completing the following briefing items:

a. Minimums and missed approach procedures are unchanged.
b. Monitor frequency no longer required.
c. A different glidepath intercept altitude may be assigned when advised to expect LDA DME or RNAV (GPS) Rwy 28R approach.

Simultaneous parallel approaches will only be offered/conducted when the weather is at least 1600 feet (ceiling) and 4 miles (visibility).

2. Dual VHF Communication required. To avoid blocked transmissions, each runway will have two frequencies, a primary and a PRM monitor frequency. The NORCAL approach controller will transmit on both frequencies. The PRM Monitor controller's transmissions, if needed, will override both frequencies. Pilots will ONLY transmit on the approach controller's frequency (120.35), but will listen to both frequencies. Select the PRM monitor frequency audio only when in contact with the NORCAL approach controller (120.35). The volume levels should be set about the same on both radios so that the pilots will be able to hear transmissions on at least one frequency if the other is blocked. If executing a missed approach at DARNE, begin the right turn as soon as practical.

3. All "Breakouts" are to be hand flown to assure that the maneuver is accomplished in the shortest amount of time. Pilots, when directed by ATC to break off an approach, must assume that an aircraft is blundering toward their course and a breakout must be initiated immediately.

a. **ATC Directed "Breakouts:"** ATC directed breakouts will consist of a turn and a climb or descent. Pilots must always initiate the breakout in response to an air traffic controller instruction. Controllers will give a descending breakout only when there are no other reasonable options available, but in no case will the descent be below minimum vectoring altitude (MVA) which provides at least 1,000 feet required obstruction clearance.

b. **Phraseology - "TRAFFIC ALERT:"** If an aircraft enters the "NO TRANSGRESSION ZONE (NTZ)," the controller will breakout the threatened aircraft on the adjacent approach. The phraseology for the breakout will be:

"TRAFFIC ALERT, (aircraft call sign) TURN (left/right) IMMEDIATELY, HEADING (degrees), CLIMB/DESCEND AND MAINTAIN (altitude)".

4. Glidepath Navigation: Descending on the glidepath ensures compliance with any charted crossing restrictions.

5. SFO LDA / RNAV (GPS) Visual Segment. If ATC advises that there is traffic approaching runway 28L, pilots are authorized to continue past DARNE to align with runway 28R centerline only when:

a) the runway 28L traffic is in sight and is expected to remain in sight,
b) ATC has been advised that "traffic is in sight." (ATC is not required to acknowledge this transmission.)
c) the runway environment is in sight.

Otherwise, a missed approach must be executed at DARNE. Between DARNE and the runway threshold, pilots of the LDA or RNAV (GPS) aircraft are responsible for separating themselves visually from traffic approaching runway 28L, which means maneuvering the aircraft as necessary to avoid the runway 28L traffic until landing (do not pass), and providing wake turbulence avoidance, as applicable. If visual contact with the runway 28L traffic is lost, advise ATC as soon as practical and execute the published missed approach unless otherwise instructed by ATC.

Special pilot training required. Pilots who are unable to participate will be afforded appropriate arrival services as operational conditions permit and must notify the controlling ARTCC as soon as practical, but at least 100 miles from destination.

(SIMULTANEOUS CLOSE PARALLEL) **San Francisco, California**
LDA PRM RWY 28R and RNAV (GPS) PRM X RWY 28R **SAN FRANCISCO INTL (SFO)**