## TERMINAL PROCEDURES PUBLICATION SYMBOLS

### AERONAUTICAL INFORMATION
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### GENERAL INFORMATION
Symbols shown are for the Terminal Procedures Publication (TPP) which includes Standard Terminal Arrival Routes (STARs), Departure Procedures (DPs), Instrument Approach Procedures (IAP) and Airport Diagrams.
STANDARD TERMINAL ARRIVAL (STAR) CHARTS

DEPARTURE PROCEDURE (DP) CHARTS

RADIO AIDS TO NAVIGATION

- VOR
- TACAN
- VOR/DME
- NDB/DME
- VORTAC
- LOC/DME
- LOC
- NDB (Non-directional Beacon)
- LMM, LOM (Compass locator)
- Marker Beacon
  - Localizer Course
  - SDF Course

[1] indicates frequency protection range
[2] indicates geographic position
[3] indicates distance information

VOR/DME ORLANDO 112° ORL 199.5
N32°32.56' W81°20.10' 216.5

VOR/DME or TACAN

REPORTING POINTS/FIXES WAYPOINTS

Reporting Points
N00°00.00' W00°00.00'

DME Fix

Mileage Breakdown / Computer Navigation Fix (CNF)
N00°00.00' W00°00.00'

WAYPOINT  FLYOVER WAYPOINT

ALTITUDES

- 3500 MCA (Minimum Crossing Altitude)
- 2300 MEA (Minimum Enroute Altitude)
- 4800 Maximum Altitude
- 2200 Recommended Altitude

SPECIAL USE AIRSPACE

- R-332
- R-Prohibited
- W-Warning
- A-Alert

AIRPORTS

- Civil
- Military
- Joint
- Civil-Military

NOTES

- All mileages are nautical.
- Indicates control tower temporarily closed UPN.
- Indicates a non-continuously operating facility, see A/FD or Flight Supplement.
- All radials, bearings are magnetic.


- SLM-0000 (FAA) - Example of a chart reference number.

- Alternate Minimums not standard.
- Civil users refer to tabulation. USA/USN/USAF pilots refer to appropriate regulations.

- N/A Alternate minimums are Not Authorized due to unmonitored facility or absence of weather reporting service.

- Take-off Minimums not standard and/or Departure Procedures are published. Refer to tabulation.
APPROACH LIGHTING SYSTEM

RUNWAY TOUCH-DOWN ZONE AND CENTERLINE LIGHTING SYSTEMS

TDZ/CL

RUNWAY CENTERLINE LIGHTS

CL

TDZL

TDZL

SHORT APPROACH LIGHTING SYSTEM

SALS/SALSF

(High Intensity)

SAME AS INNER 1500’ of ALSF-1

SIMPLIFIED SHORT APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATOR LIGHTS

SSALR

WHITE

GREEN

SEQUENCED FLASHER LIGHTS

(High Intensity)

LENGTH 2400/3000 FEET

MEDIUM INTENSITY (MALS AND MALSF) OR SIMPLIFIED SHORT (SSALS AND SSALF) APPROACH LIGHTING SYSTEMS

MALS, MALSF, SSALS, SSALF

GREEN

SEQUENCED FLASHER LIGHTS FOR MALSF/SSALF ONLY

LENGTH 1400 FEET

OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM

ODALS

WHITE

SEQUENCED FLASHER LIGHTS

LENGTH 1500 FEET

MALSR

SAME LIGHT CONFIGURATION AS SSALR.

APPROACH LIGHTING SYSTEM

ALSF-2

ALSF-2

RED

GREEN

WHITE

SEQUENCED FLASHER LIGHTS

NOTE: CIVIL ALSF-2 MAY BE OPERATED AS SSALR DURING FAVORABLE WEATHER CONDITIONS

(High Intensity)

LENGTH 2400/3000 FEET

APPROACH LIGHTING SYSTEM

ALSF-1

ALSF-1

RED

GREEN

WHITE

SEQUENCED FLASHER LIGHTS

(High Intensity)

LENGTH 2400/3000 FEET

APPROACH LIGHTING SYSTEM

SHORT APPROACH LIGHTING SYSTEM

SALS/SALSF

(High Intensity)

SAME AS INNER 1500’ of ALSF-1

SIMPLIFIED SHORT APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATOR LIGHTS

SSALR

WHITE

GREEN

SEQUENCED FLASHER LIGHTS

(High Intensity)

LENGTH 2400/3000 FEET

MEDIUM INTENSITY (MALS AND MALSF) OR SIMPLIFIED SHORT (SSALS AND SSALF) APPROACH LIGHTING SYSTEMS

MALS, MALSF, SSALS, SSALF

GREEN

SEQUENCED FLASHER LIGHTS FOR MALSF/SSALF ONLY

LENGTH 1400 FEET

OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM

ODALS

WHITE

SEQUENCED FLASHER LIGHTS

LENGTH 1500 FEET

MALSR

SAME LIGHT CONFIGURATION AS SSALR.

APPROACH LIGHTING SYSTEM

ALSF-2

ALSF-2

RED

GREEN

WHITE

SEQUENCED FLASHER LIGHTS

NOTE: CIVIL ALSF-2 MAY BE OPERATED AS SSALR DURING FAVORABLE WEATHER CONDITIONS

(High Intensity)

LENGTH 2400/3000 FEET

APPROACH LIGHTING SYSTEM

ALSF-1

ALSF-1

RED

GREEN

WHITE

SEQUENCED FLASHER LIGHTS

(High Intensity)

LENGTH 2400/3000 FEET

APPROACH LIGHTING SYSTEM

SHORT APPROACH LIGHTING SYSTEM

SALS/SALSF

(High Intensity)

SAME AS INNER 1500’ of ALSF-1

SIMPLIFIED SHORT APPROACH LIGHTING SYSTEM WITH RUNWAY ALIGNMENT INDICATOR LIGHTS

SSALR

WHITE

GREEN

SEQUENCED FLASHER LIGHTS

(High Intensity)

LENGTH 2400/3000 FEET

MEDIUM INTENSITY (MALS AND MALSF) OR SIMPLIFIED SHORT (SSALS AND SSALF) APPROACH LIGHTING SYSTEMS

MALS, MALSF, SSALS, SSALF

GREEN

SEQUENCED FLASHER LIGHTS FOR MALSF/SSALF ONLY

LENGTH 1400 FEET

OMNIDIRECTIONAL APPROACH LIGHTING SYSTEM

ODALS

WHITE

SEQUENCED FLASHER LIGHTS

LENGTH 1500 FEET

MALSR

SAME LIGHT CONFIGURATION AS SSALR.
### Visual Approach Slope Indicator (VASI)

- **VASI**
  - Visual Approach Slope Indicator with standard threshold clearance provided.
  - All lights white — too high
  - Far lights red, near lights white — on glide slope
  - All lights red — too low

- **VASI 2**
  - Far lights red, near lights white
  - Threshold 36

- **VASI 4**
  - Far lights, near lights white
  - Threshold 36

- **VASI 12**
  - Far lights, near lights red
  - Threshold 36

### "T"-VASI

- "T"-VASI
  - "T" on both sides of RWY
  - All lights variable white
  - Correct approach slope — only cross bar visible
  - Upright "T" — fly up
  - Inverted "T" — fly down
  - Red "T" — gross undershoot

### Precision Approach Path Indicator (PAPI)

- **PAPI**
  - Legend: □ White ■ Red
  - □□□□ Too low
  - ■■■■ Slightly low
  - □□■ On correct approach path
  - ■■■ Slightly high
  - □□□□ Too high

### VASI

- **VASI 6**
  - Threshold 36

- **VASI 16**
  - Threshold 36
CAUTION: When viewing the pulsating visual approach slope indicators in the pulsating white or pulsating red sectors, it is possible to mistake this lighting aid for another aircraft or a ground vehicle. Pilots should exercise caution when using this type of system.

CAUTION: When the aircraft descends from green to red, the pilot may see a dark amber color during the transition from green to red.

Painted panels which may be lighted at night. To use the system the pilot positions the aircraft so the elements are in alignment.
### ARRESTING GEAR

- Uni-directional
- Bi-directional
- Jet Barrier

**ARRESTING GEAR:** Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.

### REFERENCE FEATURES

- Buildings
- Tanks
- Obstruction
- Airport Beacon
- Runway Radar Reflectors
- Control Tower #

# When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

**Helicopter Alighting Areas**

- Negative Symbols used to identify Copter Procedures landing point

- **TDZE 123** Runway TDZ elevation
- **0.3% DOWN** Runway Slope
- **0.8% UP** (shown when runway slope exceeds 0.3%)

**NOTE:** Runway Slope measured to midpoint on runways 8000 feet or longer.

### NOTES

- U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

- Approach light symbols are shown in the Flight Information Handbook.

- Airport diagram scales are variable.

- True/magnetic North orientation may vary from diagram to diagram.

- Coordinate values are shown in 1 or 1/2 minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

- Positional accuracy within ±600 feet unless otherwise noted on the chart.

**NOTE:** All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) [noted on appropriate diagram], and may not be compatible with local coordinates published in FUP. (Foreign Only)
Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways. Where a displaced threshold is shown and/or part of the runway is otherwise not available for landing, an annotation is added to indicate the landing length of the runway; e.g., Rwy 13 Ldg 5000’.

Runway Weight Bearing Capacity/or PCN Pavement Classification Number is shown as a codified expression. Refer to the appropriate Supplement/Airport Facility Directory for applicable codes e.g., Rwy 14-32 S75, T185, S1175, T1325 PCN 80 F/D/X/U

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations and provide information for updating Computer Based Navigation Systems (i.e., INS, GPS) aboard aircraft. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4B.
INSTRUMENT APPROACH PROCEDURES PLAN VIEW

TERMINAL ROUTES

- Procedure Track
- Missed Approached
- Visual Flight Path
- Procedure Turn (Type degree and point of turn optional)

3100 NADT 5.6 NM to GS Insig
45°

Minimum Altitude
2000
1500

Feeder Route Miles
(1.5/1) Penetrates Special Use Airspace

REPORTING POINTS / FIXES / WAYPOINTS

- ▲ Name (Compulsory)
- △ Name (Non-Compulsory)
- X Mileage Breakdown / Computer Navigation Fix (CNF) N00°00.00' W00°00.00'
- DME Distance
  - From Facility
  - ABC/DME/NAV Fix
- Radial line and value
  - 8-198
- Lead Radial
  - 18-198
- Lead Bearing
  - 18-198
- WAYPOINT
  - MAP WAYPOINT
  - FLYOVER WAYPOINT
  - WAYPOINT COLLOCATED WITH NAVAI

RADIO AIDS TO NAVIGATIONS

- VOR
- VOR/DME
- TACAN
- VORTAC
- NDB
- NDB/DME
- LOM/LMM (Compass locator at Outer/Middle Marker)
- Marker Beacon
- Localizer (LOC/LDA)
- Course
  - Right side shading-Front Course;
  - Left side shading-Back Course
- SDF Course
- 180° MLS Approach Azimuth

LOCALIZER

- LOC/DME
- LOC/LDA/SDF/MLS Transmitter (shown when installation is offset from its normal position off the end of the runway.)

HOLDING PATTERNS

- In lieu of Procedure Turn
  - 270°
  - 090°
- Missed Approach
- Arrival

Holding pattern with max. restricted airspeed:
(175K) applies to all altitudes;
(210K) applies to altitudes above 6000' to and including 14000'.

Limits will only be specified when they deviate from the standard. DME fixes may be shown.
Minimum MSL altitudes are charted within each of these defined areas/subdivisions that provide at least 1,000 feet of obstacle clearance, or more as necessary in mountainous areas.