



FAA
Southern Region Headquarters

Fact Sheet

Florida West Coast Airspace Redesign (FLOWCAR) Enhances Efficiency at Southwest Florida International Airport

The Federal Aviation Administration's Florida West Coast Airspace Redesign was implemented on Sept. 30, 2008. FLOWCAR resulted in more efficient handling of flights at Southwest Florida International Airport (RSW), while maintaining strict compliance with Federal environmental laws and the airport's current Noise Compatibility Plan.

Background

Economic and population growth in the southern half of Florida in recent years has fueled a greater increase in flights than in any other part of the country. This increase in flights has outpaced the system's ability to absorb the traffic, causing saturation of air traffic control sectors, frequent air traffic initiatives to handle the traffic, and increased flight delays. As a result, the Federal Aviation Administration developed the Florida West Coast Airspace Redesign (FLOWCAR) to segregate traffic flow into and out of southern Florida.

Additionally, RSW Airport's Master Plan shows a new, 9,100-foot runway that will be parallel to the airport's only runway 6/24. FLOWCAR procedures lay the groundwork for operations to the new runway when it is constructed and commissioned. The tentative date for commissioning is 2015.

FLOWCAR was implemented in two phases:

Phase One was implemented in October 2007, and it involved changes to high altitude procedures in airspace controlled by the Jacksonville and Miami Air Route Traffic Control Centers.

FLOWCAR Phase Two was implemented on Sept. 30, 2008. It was developed to segregate and organize traffic flows into southern Florida airports. Before Phase Two was implemented, the flow of aircraft arriving into Ft. Myers-area airports was not efficient, and airspace to the northeast of Ft. Myers was underutilized.

Phase Two addressed air traffic into and out of airports in Fort Myers airspace including Southwest Florida International Airport (RSW), Page Field (FMY), Naples Municipal Airport (APF), and Marco Island Airport (MKY). FLOWCAR also addressed congestion in central Florida airspace, and streamlined the flow of traffic on the west side of Florida en route to Miami, Ft. Lauderdale, and Palm Beach.

Operational Benefits for RSW

Eighty percent of flights arriving at RSW overfly the water and land on Runway 6. Before Sept. 30, 2008, only one precision approach procedure was available for arriving flights - the TYNEE 1 Standard Terminal Arrival procedure. TYNEE 1 caused all aircraft on precision approaches to fly toward Ft. Myers from a northwesterly direction, and make a left hand turn to line up for landing on Runway 6. This procedure still is in use for approximately half of the arrivals at RSW. Effective Sept. 30, 2008, the FAA revised the TYNEE 1 procedure to enable pilots to make the approach using satellite technology. They are called RNAV (area navigation) procedures. RNAV procedures allow pilots to fly a more precise arrival path into the airport, thus avoiding noise sensitive areas.

A second flight path for arrivals to Runway 6 that existed before Sept. 30, but it was used only at the discretion of air traffic controllers. This procedure – the SHFTY 1 Standard Terminal Arrival procedure - was formalized as an RNAV approach procedure under FLOWCAR. Before Sept. 30, 2008, controllers directed aircraft on that flight path, now pilots can program the SHFTY 1 procedure into their on-board computers and automatically fly the procedure. SHFTY 1 allows flights to fly toward RSW from a northeasterly direction until they are out over the water, and turn right to line up for landing on Runway 6. SHFTY 1 arrivals to Runway 6 fly north of Bonita Springs and Estero at an altitude of 4,000 feet before turning to approach Runway 6. The new procedure only applies to approaches, and not to departures.

The FAA estimates that half of the flights arriving on Runway 6 at RSW will use the SHFTY 1 RNAV procedure daily - approximately 40 to 60 arrivals, depending on the time of year. **This is not 40 to 60 additional flights overhead. These are the current arrivals that flew on the TYNEE 1 arrival procedure or flew the SHFTY 1 procedure before it was formalized.** The SHFTY 1 RNAV arrival procedure allows pilots to fly a more precise arrival path into the airport, thus avoiding noise sensitive areas. Arriving flights are at a 4,000-foot altitude when flying on this approach route.

Before the two RNAV procedures were implemented, the flow of aircraft arriving into RSW was not efficient, and airspace surrounding the airport was not being used effectively.

Environmental Compliance

Environmental specialists in the FAA Air Traffic Organization thoroughly reviewed FLOWCAR procedures before they were implemented. All procedural changes were made at altitudes above 4,000 feet, and did not result in increased noise impacts according to Federal standards. As a result, further environmental study was not warranted, and the FAA issued an environmental determination called a categorical exclusion. This means the procedures were excluded from further environmental review.

Federal agencies measure aircraft noise by averaging day and night sound levels. Noise generated between midnight and 6 am is weighed more heavily than day and early evening noise. The result is an average day-night sound level – DNL. The FAA, in conjunction with other Federal agencies, established a guideline of 65 DNL as the level at which noise is objectionable for residential purposes. Aircraft flying the SHFTY 1 arrival procedure are overflying areas that are not affected by noise according to Federal standards.

For sound level associated with changes to flights paths over areas that are not affected according to Federal standards, FAA primarily uses the NIRS Screening Tool (NST). The NST is computer model used to determine if a five decibel DNL change in sound levels would occur for aircraft operating between 3,000 feet and 10,000 feet above ground level. The five-decibel sound level increase has been determined to be a threshold at which additional noise impact analysis might be considered. The NST was run for the RNAV flight procedures at RSW, and the five-decibel threshold was not exceeded.

FLOWCAR procedures were developed in accordance with RSW Airport's FAA-approved Noise Compatibility Program (Part 150 Study). The Part 150 Study identifies areas around the airport that are impacted by aircraft noise, according to Federal standards. Aircraft flying the SHFTY 1 arrival procedure are not overflying the noise-impacted areas.

The airport's Noise Compatibility Program (Part 150 Study,) which is scheduled for an update in Fall 2009. During the study, the FAA will work closely with the Lee County Port Authority and surrounding communities to address noise concerns, and help develop ways to reduce noise over residential areas near the airport. We encourage interested citizens to participate in the study.

###