



DATE: July 01, 2021
TO: Brenda J. Billingsley, Director, Purchasing Division
THRU: Micheal Nonnemacher, Aviation Chief Operating Officer
FROM: Angela Scott, Informations Systems Administrator
PROJECT TITLE: Passur Aerospace
REQUISITION NO. AVI-1654

SOLE SOURCE/SOLE BRAND REQUEST

I. REQUEST: Provide a description of the features of the product/service or Scope of Work.

The Aviation Department's Information Systems Division (BCAD-IS) is requesting that PASSUR Aerospace (PASSUR) be designated as the Most Reasonable Source for the PASSUR Data Subscription Services - Landing Fee Management Billing Module, Landing Fee Management Audit Module, Communicator Integrated Traffic Management (PITM), Web Tracker/Ariva Flight Tracking Global, RightETA Feed, Class II Noise Feed, and Surface Sequencing Optimization Program. These software subscription services are proprietary software applications engineered, developed, distributed, and maintained exclusively by PASSUR. Technical support and maintenance services are solely performed by PASSUR staff and PASSUR is the sole provider of these services.

BCAD-IS currently subscribes to the Landing Fee Management Billing Module, Landing Fee Management Audit Module, Communicator Integrated Traffic Management (PITM), Web Tracker/Ariva Flight Tracking Global, RightETA Feed, Class II Noise Feed, and Surface Sequencing Optimization Program under Master Agreement #Z2114726A1_1.

PASSUR Aerospace is the sole developer and provider of PASSUR data and their subscription services. There are other sources of airline data available in this market, however PASSUR has installed radar equipment on location at the Fort Lauderdale-Hollywood International Airport (FLL) in order to provide a higher level of detailed data that is collected from the airplane transponders as they arrive and depart from the airport. They are the only vendor with this radar equipment installed at the airport. The quality of their data has a proven track record and acceptance by the airlines as the industry standard.

II. JUSTIFICATION: Please check all boxes that describe your reason(s) for determining that only one source or brand is reasonably available.

Only Sole Source/ Uniqueness

- Proprietary Item - this vendor/source has the only rights to provide this service or commodity. A letter from the manufacturer or authorizing entity is included in this request.
- Technology Improvements - updates or upgrades to an existing system, software, software as a service (SaaS), hardware purchases.
- Engineering Direction - engineering drawing or specification identifies product; "no substitutes or equivalents will be acceptable."
- Only qualified supplier - reliability and maintainability of the product or service would be degraded unless specified supplier is used; may void warranty. This request includes a copy of the current warranty information.

Other/or Additional information - the County requires this sole source, sole brand purchase for the following reasons:

PASSUR is the only provider who can provide ALL of the services/solutions listed in the Most Reasonable Source document as a single provider. Additionally, PASSUR owns and operates one of the world's largest and most extensive private commercial aviation surveillance networks, including FLL. The PASSUR Network integrates and fuses additional key surveillance sources, to include global ADS-B, Airport Surface Detection Equipment, Model X (ASDE-X), Mode S, En Route Radar, Airline OOOI data, Aircraft Communications Addressing and Reporting System (ACARS), fleet databases, as well as other sources. The PASSUR Network creates a direct data feed of critical flight and airspace behavior and conditions, an essential underlying resource for the predictive analytics, real-time decision support, and performance analysis tools that are part of the PASSUR surface optimization solution, including many of the patented processes listed below. There is no other comparable commercial surveillance and data resource in the industry. PASSUR has the most diverse and unique set of aviation flight data pulled (PASSUR Fused Tracks) from multiple sources that is then aggregated, analyzed and used to power our integrated platform.

Furthermore, key differentiators of PASSUR solutions is the breadth and depth of the data (detail and volume of historical data stored; accuracy and detail of live data; and multiplicity of data sources). Without quality data, decision support and business analytics solutions are not as effective and reliable. All the surveillance data acquired by the PASSUR Network is integrated and correlated into specialized databases to support predictive, real-time, and post operational requirements. PASSUR databases consolidate multiple overlapping data sets to ensure completeness, accuracy, fulfillment of specific operational requirements, and the normalization of data for a single-source authoritative record of operational performance. The data processed in these master data repositories supports the key capabilities and attributes of the PASSUR software.

Business Case (One/Most Reasonable Source or One/Most Reasonable Brand)

- Operational Compatibility - replacement parts from alternate suppliers are not interchangeable with original part and causes equipment incompatibility. Previous findings and/or documentation is included with this request.
- Ease of Maintenance - maintenance or retooling prohibits competition. Section III, Comparative Market Research includes estimated costs associated with changing current source and/or brand.
- Follow-On - potential for continued development or enhancement with same supplier and eliminates costs incurred by using different supplier. Section III, Comparative Market Research includes estimated costs for replacing current or existing system.
- Complies with existing community and safety standards, and/or laws, rules, and regulations.
- Exempted from the Procurement Code - per Section 21.18 of Broward County Administrative Code.
- Other/or additional information - using this sole source, sole brand purchase benefits the County for the following reasons:

Landing Fee Management Billing Module, Landing Fee Management Audit Module and Operations Archive

BCAD currently subscribes to PASSUR for these modules associated with the billing process which allows BCAD to more efficiently invoice and collect revenue in a timely manner. PASSUR has a tested and proven interface used by many airports with PropWorks, the Property and Revenue Management system used at BCAD. The airlines have confidence in the quality of data from PASSUR and any billing discrepancies are handled directly between the airline and PASSUR.

Communicator Integrated Traffic Management (PITM) and Web Tracker

BCAD currently subscribes to the PASSUR Communicator Integrated Traffic Management (PITM) and Web Tracker to more efficiently operate the airport by using this data to preplan aircraft movement, thereby reducing delays on the ground. The PASSUR Communicator Subscription for airports is currently subscribed to by 23 airports across the country, as well as the top eight North American airlines, in order to share critical real-time status, update, and operational decision-support information. This allows BCAD to effectively manage diversions, Department of Transportation (DOT) Tarmac Delay Rule violations, the new Federal Acquisition Regulations (FAR) 117 Flight Crew Rest Rules, as well as the resulting delays, cancellations, fines, and disruptions. This subscription allows FLL to be a part of same-day, real time operational data exchange as equal partners with the airlines and the Federal Aviation Administration (FAA), to manage these expensive and complex issues collaboratively. BCAD staff has the ability to track, manage, and distribute critical, timely airport information from a single platform that is viewable to the entire aviation community. Real-time diversion, tarmac delay, congestion, demand/capacity imbalances and other metrics are all automatically alerted and tracked predictively, in real time, and in reports. As part of this subscription, BCAD has access to automated mobile and on screen airline updates from the International Air Transport Association (IATA) tactical information portal, via a two-way airline-airport communication flow unique to the PASSUR subscription service. The subscription allows FLL operations staff to access a real-time view of the airport surface operation.

Web Tracker/ARiVA Flight Tracking Global

BCAD utilizes the PASSUR web-hosted flight tracking solution which integrates all the required data and tracks all operations on a single screen that displays gate-to-gate, airborne, and surface. Data is tracked from ground sensors, traffic flow management systems, Air Navigation Service Providers (ANSPs), terrestrial ADS-B and Aireon ADS-B which are fused to create a single set of data about the flight track, the airport, and the airspace. The solution offers global, operational quality surface surveillance for gate-to-gate awareness and decision support. PASSUR's data architecture utilizes data options that include terrestrial ADS-B, Space-Based ADS-B, or both, available on ARiVA graphical user software or through ARiVA's data Application Programming Interface (API). This solution provides BCAD improved on-time performance,

schedule integrity, connections, and turn times reducing block time and fuel burn.

RightETA Feed

BCAD currently subscribes to the PASSUR Right ETA Data Feed for integration into the Airport Resource Management system for gate allocation. This subscription allows BCAD to more efficiently operate the airport through the direct integration of the PASSUR data into the PropWorks Airport Gate Management System, providing a more efficient use of airline flight information. The subscription allows BCAD to have an enhanced level of detailed information in the PropWorks Airport Gate Resource Management System to facilitate more efficient gate scheduling and resource planning.

Class II Noise Feed

BCAD currently subscribes to the PASSUR Class II Noise Feed and Aircraft Flight Tracker for the purpose of tracking noise levels at the airport as part of the noise program. PASSUR is the sole developer and provider of PASSUR Class II Noise Feed and Aircraft Flight Tracker. They are the only vendor with the required radar equipment installed at the airport to provide this data feed.

Surface Sequencing Optimization Program

The PASSUR Surface Sequencing Optimization Program is a proprietary solution that is engineered, developed, distributed and maintained exclusively by PASSUR. Technical support and maintenance services are solely performed by PASSUR staff and PASSUR is the sole provider of these services. This solution provides common situational awareness to all airport stakeholders on aircraft surface movement including the BCAD Airport Operations Control Centers, BCAD Gate Control, US Custom Border Patrol (CBP), Airline Representatives, all Ramp, Fueling Contractors and the South Ramp Tower controller. This solution provides essential accurate data on each flight utilizing radar equipment installed at the airport, allowing each stakeholder to plan and be prepared to effectively react to any last minute changes as it pertains to surface metering.

This solution allows BCAD to more efficiently and effectively sequence and manage flights in and out of the gates as a function of dynamically changing airline priorities. It contains a Collaborative Gate Allocation and Sequencing Platform containing Predictive Analytics designed to enable all airlines to manage their revised priorities for arrival and departure sequencing which will mitigate problems with extended gate-holds and taxi in times. It reduces manual coordination and gate delays through an Automated Common Data Exchange which alerts all stakeholders so they are aware of their flight status and sequence to the gate, thus reducing gate hold out delays and missed gate opportunities. This also facilitates increased passenger flow through U.S. Customs facilities as a result.

The PASSUR Surface Sequencing Optimization program is currently in use by JetBlue, American Airlines, and United Airlines at several airports across the U.S. This product enhances FLL's ability to exchange same-day, real time operational data as equal partners with the airlines and the FAA, to manage these expensive and complex issues collaboratively. The Predictive Analytics algorithms in use by PASSUR are proprietary and unique to this solution. This product used in combination with PASSUR Audit Module and Operations Archive, Landing Fee Management Subscription, and Communicator Integrated Traffic Management Subscription assists FLL with improving real-time data exchange for both internal and external customers including the FAA Command Center, which enhances operations at FLL.

This solution addresses the following functional requirements for FLL:

- Provides both arrival metering and departure metering.
- Utilizes on-site radar for non-cooperative tracking, utilizing multiple data sources so there is no dependency on a single source of data or down-time from external data source feeds.
- Integrates with BCAD's current Gate Resource Management System.

- Allows the Surface Sequencing data to be shared across the other data subscription services BCAD currently has in place with PASSUR.
 - Provides BCAD Gate Control with the most accurate and timely airline data via multiple data sources, including the on-site radar, to allow efficient and effective gate assignment to flights in order to reduce gate holds, reduce gate delays, reduce turn times and reduce unused gates.
 - Enables BCAD to sequence and manage flights in and out of the gates as a function of dynamically changing airline priorities. This collaborative gate allocation and sequencing solution allows all stakeholders to see the gate assignments in advance, reducing manual coordination and gate delays. All stakeholders are aware of their flight status in the gate sequence and will be aware of gate changes instantly without having to make a phone call to BCAD's Gate Control personnel. Stakeholders can preplan their gate operations and make automated priority requests that can be honored by either the BCAD Gate Controller or the Ramp Controller. This platform reduces workload for all stakeholders, increases gate efficiency and improves gate operations overall.
 - Reduces gate hold out delays, missed gate opportunities, reduces gate push-back delays and improves passenger flow through the CBP facility. Each participating airline's load information would be available to CBP. This information, along with other critical gate data can be used to make gate assignment decisions that could reduce airline gate delays and turn times.
 - Provides the Ramp Control personnel with accurate relevant operational data and most importantly, accurate gate status. The PASSUR solution run on the existing computer hardware and improves their operation by reducing controller administrative and operational workload by streamlining the operation and making it more efficient.
 - Provides an automated common data exchange that natively integrates into existing solutions in place with PASSUR as a single platform solution that aggregates and re-distributes real time information for gates (assignments and status), flights (multiple predicted and actual milestones for arrival/departure), passenger nationality mix, CBP capacity/status, and airline sequencing priorities.
 - Addresses the lack of timely information to gate planners and ramp controllers regarding gate occupancy status, arrival ETA, departure ready state, status of aircraft already taxiing in, and cancellations. This is a single "clearinghouse" where all the essential data elements from the different stakeholders are gathered, processed into useful information, and then displayed and distributed to support specific operational, business, and decision making functions.
 - Ensures that the numerous sources of data needed, sometimes overlapping sources, is evaluated the that the most accurate, reliable data is acquired from all the stakeholders.
 - Provides a Collaborative Gate Allocation and Sequencing Program on a single platform that allows all FLL stakeholders to see gate assignments and gate changes, allows airlines to communicate changing priorities and requests for gate arrival and push-back sequences, and BCAD and/or Ramp Controllers to reallocate gates/reorder sequence on the same platform.
 - Allows CBP to update status of passenger processing and release of flights post-security sweep.
 - Enables all the airlines to manage their revised priorities for arrival and departure sequencing, thus reducing extended gate-holds, taxi in times, and related issues.
- ***In addition to the justification in this memo, PASSUR has provided a listing of sole source support and patents related to this procurement (see attached)***

III. COMPARATIVE MARKET RESEARCH: Provide a detailed source or market analysis for justification of sole source/brand or most reasonable source (attach extra sheets as needed).

Estimated project value: 2,000,000.00 Contract length (if applicable): 3 year initial term plus additional two 1 year renewals

Expenses to date: \$2,090,106.00

Has this commodity or service been previously provided to the County? Yes No

If yes, when and by whom? BCAD - IS

How was item/service procured? Reasonable source

What is the current contract (MA) or purchase order number? #Z2114726A1_1

If this is a sole brand, is there an "authorized" dealers list? Yes No

Cost/Benefit Analysis: What would the cost be to utilize an alternate vendor or source? This explanation should include the savings and/or additional costs to the County by not using the preferred vendor or source. Attach additional sheets if needed.

PASSUR is the only provider who can provide ALL of the services/solutions listed in the Most Reasonable Source document as a single provider, therefore allowing BCAD to obtain all services for a lower monthly subscription rate. BCAD has reviewed other vendor offerings and there are no providers that have radar on the FLL airport campus to provide data for the surface optimization solution. If the FAA system is down, PASSUR has the additional data sources available using the radar. There is no dependency on a single source of data. PASSUR has the most diverse and unique set of aviation flight data pulled (PASSUR Fused Tracks) from multiple sources that is then aggregated, analyzed and used to power our integrated platform.

Sources of data include:

- FAA System Wide Information Management Traffic Flow Management data (SWIM TFM)
- Surface Movement Event System (SMES)
- FlightRadar24 Terrestrial ADS-B
- PASSUR proprietary 4.6 sec radar data (PASSUR units)
- Aireon space-based global en route ADS-B
- Exclusive access to Aireon space-based surface ADS-B

BCAD Finance uses the PASSUR subscriptions for billing reference for the airlines through the capture of landed weights and operational statistics from the PASSUR data subscription. More than \$1 Billion in landing fees is managed by 35+ airports using PASSUR's independent data capture and processing. The proprietary, fused data network and specialized algorithms and data mapping which supports the PASSUR financial auditing and invoicing solution is a unique national resource, providing airports the *only source for independently auditing landing fee activity*. This include coverage from PASSUR ADS-B surveillance, as well as PASSUR proprietary tail-beacon code matching, both of which are critical for the Alaska International Airport System (AIAS) landing fee program we provide, given the unique circumstances of its geography as well as its current FAA surveillance infrastructure. If this solution is not available for the BCAD Finance Division to use for billing, and alternate vendor with less credibility in the industry would have to be used which would increase the workload for the BCAD Finance Division and lead to challenges by airlines on the validity of the data being used to bill the airlines.

BCAD IS and the Noise Mitigation office currently utilize PASSUR for internal reporting based on these data feeds and would have to recreate these reports and go through training if an alternate vendor was used. In addition, Finance, Airport Development and Operations staff would have to undergo extensive training to use a solution from an alternate vendor.

PASSUR has provided a listing of patents related to this procurement (see attached).

CERTIFICATION: I have thoroughly researched the sole source or sole brand justification and fully understand the implications of Section 838.22 of the Florida Statutes:

(2) "It is unlawful for a public servant, with corrupt intent to obtain a benefit for any person or to cause unlawful harm to another, to circumvent a competitive bidding process required by law or rule by using a sole source contract for commodities or services."

(5) "Any person who violates this section commits a felony of the second degree, punishable as provided in s. 775.082, s. 775.083, or s. 775.084"

Angela Scott	Angela Scott <small>Digitally signed by Angela Scott Date: 2021.07.15 09:07:58 -04'00'</small>	July 15, 2021
REQUESTOR/EVALUATOR (PRINT)	REQUESTOR/EVALUATOR (SIGN)	DATE
	Michael Nonnemacher <small>Digitally signed by Michael Nonnemacher Date: 2021.07.15 15:17:29 -04'00'</small>	
DEPT/DIV DIRECTOR OR DESIGNEE (PRINT)	DEPT/DIV DIRECTOR OR DESIGNEE (SIGN)	DATE

The Purchasing Agent has reviewed the request and has completed the required due diligence per the Procurement Code Section(s) 21.34 and 21.35. The Purchasing Agent recommends the following:

Sole Source
 Sole Brand
 Reasonable Source
 RFI attached
 Rejected
 Request Authorization to Negotiate

Additional Information:

The Request for Information (RFI) No. TEC2123393FI was issued on July 23, 2021, to determine if other vendors were able to provide the requested services. The RFI closed on July 30, 2021, with zero (0) responses submitted. There were 11 views, and no vendor questions were asked.

No other responses were received, PASSUR Aerospace Inc. (PASSUR), for PASSUR Data Subscription Services was identified as the only available product to meet the county requirement.

The Purchasing Agent recommends the approval of the Most Reasonable Source designation for the PASSUR Data Subscription Services, to purchase the annual subscription for PASSUR Data Subscription Services, including the following modules: Landing Fee Management Billing Module, Landing Fee Management Audit Module, Communicator Integrated Traffic Management (PITM), Web Tracker/Ariva Flight Tracking Global, RightETA Feed, Class II Noise Feed, and Surface Sequencing Optimization Program. These software subscription services are proprietary software applications engineered, developed, distributed, and maintained exclusively by PASSUR.

Purchasing Agent Signature:	ECATERINA SULI-WOLF <small>Digitally signed by ECATERINA SULI-WOLF Date: 2021.08.06 13:27:31 -04'00'</small>	Date: 08.06.2021
LEAHANN LICATA	<small>Digitally signed by LEAHANN LICATA Date: 2021.08.06 17:37:20 -04'00'</small>	08.06.2021

APPROVAL AUTHORITY
REASON/SUGGESTED ACTION (IF DISAPPROVED):

Signature:	BRENDA BILLINGSLEY <small>Digitally signed by BRENDA BILLINGSLEY Date: 2021.08.10 15:30:10 -04'00'</small>	Date: 08.10.2021
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