

GOVERNMENT/INDUSTRY AERONAUTICAL CHARTING FORUM 04-02

October 27-28, 2004

Recommendation Document

Subject: FAA provision of source material to allow inclusion of parachute jump areas in aircraft electronic display and navigation systems.

Background/Discussion: In order for aircraft electronic display and navigation systems to provide jump area information to pilots, the current method of describing jump area locations by bearing and distance needs to be supplemented with jump area coordinates and identifiers.

Recommendations: Assign identifiers to all charted parachute jump areas, and include the identifier and geographic coordinates with existing information for all charted jump areas in the National Flight Data Digest.

Comments: This issue is a result of a request by AOPA and USPA

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MEETING 04-02: Mr. Eric Secretan, NACO, submitted this issue. Mr. Secretan stated that there is an increasing demand for parachute jump area (PJA) data. In order for aircraft electronic display and navigation systems to provide jump area information to pilots, the current method of describing jump area locations by bearing and distance needs to be supplemented with jump area coordinates and identifiers. Recommendation was made to assign identifiers to parachute jump areas and provide geographic coordinates. Each jump area must have a unique identifier. A six-character identifier has been proposed by ARINC. There are approximately two hundred-fifty PJA associated with the US Parachute Association (USPA) in addition to fifty non-associated PJA. Mr. Dick Powell, Aeronautical Information Services, stated that NFDC could provide identifiers and coordinates. USPA recommended that NFDC and USPA compare databases. ACF discussion led to the determination that a PJA working group should be created to identify the requirements and develop a proposal for ACF consideration. The following individuals/organizations have expressed an interest in participating on the new working group. Mr. Secretan or a member of the NACO Requirements and Technology Staff will chair the working group. **ACTION:** FAA, AVN-503 and ACF Parachute Jumping Area Working Group.

ACF Parachute Jumping Area Working Group

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MEETING 05-01: Mr. Eric Secretan, NACO, provided the following briefing. The ACF determined that there is an increasing demand for parachute jump area (PJA) data in Aircraft Electronic Display and Navigation Systems. At the 04-02 Aeronautical Charting Forum, the Parachute Jumping Area Working Group (PJAWG) was established to identify the requirements and develop a proposal for ACF consideration. The PJAWG met in March 2005. The PJAWG determined that in order for aircraft electronic display and navigation systems to provide jump area information to pilots, the current method of describing jump area locations by bearing and distance needed to be supplemented with jump area coordinates and identifiers. The PJAWG recommended that a seven character unique identifier be used to describe each PJA to allow it to be included in flight databases. The first two letters would be PJ followed by a two letter State or Province Code followed by three digits. For example, the identifier PJMD001 would represent a parachute jump area in Maryland. A similar naming convention was discussed for Glider Areas, Hang Glider Areas, and Ultra Light Areas. The proposed prefix identifiers would be GL, HG and UL respectively, followed by a State/Province Code and three digits. (i.e.GLMD001, HGMD001 and ULMD001). The following data elements were determined to be necessary fields in the data record.

- Unique identifier
- PJA Name

- Geographic position
- State
- Controlling Agency – ATC Facility
- Frequencies
- Times of use
- Associated airport (if any)
- Civil or Military Use
- Jump Altitude (Normal Maximum)
- Jump Volume
- Remarks
- Charted on sectional (Y or N)

These data elements were compared to the elements currently listed in the NASR database to ascertain what new data would need to be collected and what new fields would need to be added to NASR. Mr. George Sempeles, Cartographic Standards, stated that NASR would be modified within a year to include unique identifiers, geographic position, civil or military use and jump volume. Mr. Dick Powell, Aeronautical Information Services, stated that the additional fields would be available in the NASR subscriber file. Mr. Greg Yamamoto, NACO, has submitted the recommendations to ARINC for approval. The layout record for ARINC-424 will be included in version 19. Mr. Secretan stated that NACO would provide the information once it is collected as a standalone database as part of NACO's Digital Aeronautical Information CD. Mr. James Spencer, NAVFIG, questioned if the PJA would be shown on Instrument Approach Procedure charts. Mr. Secretan responded that PJA on IAP issue was submitted as a separate item to the ACF several years ago and the ACF nonconcurrent. **ACTION:** Cartographic Standards and PJAWG.

MEETING 05-02: Mr. George Sempeles, Cartographic Standards, briefed that National Airspace System Resource (NASR) would be modified sometime in FY06 to include data fields for unique identifiers, geographic position, civil or military use and jump volume. Once the data fields are added to NASR the database will be populated. Mr. Eric Secretan, NACO, questioned if the additional fields would be available in the NASR subscriber file. Mr. Sempeles responded that the data would automatically be added to the subscriber files. Mr. Secretan reported on the NACO action item to determine the criteria for indicating if a jump area is on or near a procedure. Mr. Secretan stated that determining if a jump area is near a procedure is very subjective and creating the criteria for adding this information to a database would be extremely difficult. Mr. Secretan stated that the FAA is not interested in pursuing this issue. However, the parachute jump area layout record for ARINC-424 will be included in version 19. Mr. John Moore, NACO, recommended closing the NACO portion of the issue and leaving the NASR portion of the issue open. **ACTION:** Cartographic Standards.

MEETING 06-01: Mr. George Sempeles, Cartographic Standards, briefed that National Airspace System Resource (NASR) would be modified sometime in FY06 to include data fields for unique identifiers, geographic position, civil or military use and jump volume. The identifier field will accommodate a six character alphanumeric identifier. The geographic coordinate field will be expressed in degrees, minutes, seconds and fraction of seconds to four decimal places. There will be one field for latitude data and a separate field for longitude data. The civil or military use field will display the values as 'civil', 'military' or 'joint-use'. The jump volume will display the level of activity/intensity. Mr. Sempeles inquired as to what type of information would be shown in this field. Mr. Eric Secretan, NACG, reported that this field was requested by

Mr. Edward Scott, U.S. Parachute Association and would show the activity schedule, i.e., weekends only. Mr. Sempeles informed the group that this type of scheduled activity is currently available in the parachute jump remarks portion of the NASR database. The radial and distance information currently available in NASR for the 100+ parachute jumping areas will be converted to geographical positions. Mr. Mark Ingram, ALPA, inquired if a charting/no-charting field would be added to NASR. Mr. Sempeles explained that the charting/no-charting information is currently available in NASR. Additionally, the information is published in the Parachute Jumping Area section of the Airport/Facility Directory (A/FD). Jump sites that are depicted on the appropriate visual chart are indicated in the A/FD by a lower case letter "c" next to the jump site name/location. **ACTION:** Cartographic Standards.

MEETING 06-02: Mr. George Sempeles, Cartographic Standards, was unable to attend the forum. Ms. Valerie Watson, Cartographic Standards, briefed that National Airspace System Resource (NASR) version 7.1 would be released on October 23, 2006 to include data fields for unique identifiers, geographic position, civil or military use and jump volume. The jump volume will display a single alpha character to represent the level of activity/intensity. Ms. Watson inquired as to what type of information would be shown in this field. Mr. Eric Secretan, NACG, reported that Mr. Edward Scott, U.S. Parachute Association (USPA), requested this field. He stated that the field is subjective and recommended that it be left blank until we receive guidance from the USPA. The Parachute Jump Working Group has no additional meetings scheduled. Mr. Secretan stated that the USPA had agreed to poll their members and provide updated parachute jump area information to George Sempeles for NASR population. Parachute jump areas that are no longer in existence would be deleted and new jump areas would be added based on the listing received from USPA. In addition, USPA agreed to provide a yearly update. Ms. Watson reported that to her knowledge this information has not been provided to Cartographic Standards. Mr. Secretan reported that ARINC 424 version 19 scheduled for release in 2007 would include coding of parachute jump areas. The group discussed digital cockpit displays and database sizing issues for the airline industry. Mr. Ted Thompson, Jeppesen, commented that Jeppesen has no plans to include this information in their database; PJA data will be an on demanded option. Ms. Donna Gallant, NACG, inquired how the revised parachute jump area information would be disseminated to NACG. Ms. Watson responded that is yet to be determined. She assured the group that Mr. Sempeles would coordinate directly with NACG and the information would be published in the National Flight Data Digest (NFDD) possibly as an add-on page. The group agreed that the issue would remain open until the listing was received from USPA and the information was populated in NASR. **ACTION:** Cartographic Standards.

MEETING 07-01: Mr. George Sempeles, Cartographic Standards, briefed that there are two parts to this issue, first how data is presented in the NASR database verses the requirement of GNSS aircraft displays expressed in degrees, minutes and seconds, and the second part of this issue is where do we get new data or updates to these areas?

The original request was to have the NASR database modified to display the data in geographic positions (GPs). The October-November release of the NASR database has been updated to include data elements of PAJA information to support aircraft electronic display and navigational systems. All of the bearing and distances have been calculated into GPs. Each PJA has a manufactured identifier beginning with a "P" followed by the two-letter state code followed by a three digit number (e.g. PMD001, PVA001, etc.) USPA had originally agreed to provide this data. Just during the past week NFDC finally received the list of USPA jump area data. This data is listed by state, then by the club, the name of the airport it is associated with and listed by the distance from the central business district of the associated city. This data is not in the

format that NFDC currently has. Mr. Sempes is going to have to compare what USPA has provided with what currently exists in NASR. The problem is that NFDC is not comfortable publishing private organization's data. NFDC will have to inform those air traffic facilities that have jurisdiction over the airspace to check and report the data to NFDC. Flight Services do not have jurisdiction over related airspace.

Mr. Eric Secretan, NACO, asked if USPA was going to act as the sponsor for the information and supply a yearly data dump to possibly keep the data more current than in the past. Mr. Sempes stated that the data received was USPA's yearly review, but that some clubs and organizations are not associated with USPA. Once Mr. Sempes finds the differences between the list and NASR, he will forward the information to the facilities that have jurisdiction over that airspace. Non-responses from these facilities mean nothing can be done. Because USPA data is not official information, changes and updates have to come from a Terminal or ARTCC facility to NFDC.

ACTION: Mr. George Sempes will provide an update at the next ACF.

MEETING 07-02: Mr. John Moore, NACO, recapped the issue and read an excerpt from Mr. George Sempes, Cartographic Standards. "Of the 204 records provided by Mr. Ed Scott of USPA, I have reviewed 108 records verses the 703 records found in NASR. Of the 108 records reviewed, I have found 12 possible adds to NASR. I cannot use the USPA list to assume deletes because it is possible some activity areas are not members of the USPA. I'm sorry the review is slow but USPA's list is not compatible with the NASR data structure, so I have to perform a manual check between the two databases. My plan is to complete the review, identify all the adds, find & notify the facilities having jurisdiction over the airspace where the jump activity is occurring, and request those facilities notify NFDC via formal communication." Resolving the differences is a significant work effort.

Jim Spencer, NGA/OMS, requested that before any jump areas are deleted from NASR, the FAA should get input from the military.

ACTION: Mr. George Sempes will provide an update at the next ACF.

MEETING 08-01: John Moore, NACO, recapped the issue and turned it over to Mr. George Sempes, FAA/NFDC. Mr. Sempes first introduced Mr. Randy Ottinger of the U.S. Parachute Association and then reported that NFDC had previously reviewed PJAs in the FAA's NASR database (700+) against a list provided by the USPA (200+). The NASR database had many more records than the USPAs, including non-USPA PJAs (civil and military).

Jump sites have been assigned a unique identifier and converted to geographic positions vice bearing and distance from a given point. The USPA had CONUS data only but no military records. Mr. Sempes reported 45 possible additions to NASR and added that these additions must come through the facility having jurisdiction over the airspace. Mr. Ottinger offered to help clear up any confusing or conflicting information. Mr. Sempes offered the USPA the 45 differences they found.

USPA has committed to providing a revised listing annually to the FAA.

NACO previously made recommendations to ARINC to accommodate parachute jump areas in aeronautical databases (unique identifiers, boundaries, vertical limits, etc). ARINC 424 - 19 will address coding of PJAs.

PJAs might eventually have application for interested avionics companies or for future data-driven VFR charting applications / US Sectional electronic chart display themes.

ACTION: Mr. George Sempes will provide an update at the next ACF.

MEETING 08-02: John Moore, NACO, recapped the issue and turned it over to Mr. Greg Pray, FAA/NFDC. Mr. Pray reported that PJA identifiers have been assigned for some airports in NASR over the past 6 or 7 months. So far, none have appeared in the A/FD. Ms. Valerie Watson, FAA/NACO, will speak to Ms. Debra Copeland, FAA/NACO, to see just how they were planning to list these identifiers in the A/FD. Ms. Watson pointed out that the provision of source was the original issue and that the previous source was the FAA's Flight Service Stations (FSS). While most FSSs duties have been taken over by the contractor, Northrup Grumman, the provision of PJAs was omitted. USPA has verbally committed to providing annually revised listings to the FAA. The question was asked, how will we insure that USPA will continue to provide the source? The forum agreed that some sort of formal agreement was needed from USPA. Mr. George Sempeles FAA/NFDC will need to acquire a written statement to the ACF about source updates. The charting specifications have not been changed. ARINC version 19 accommodates PJAs.

Editorial Note: The following was received from Mr. George Sempeles, after the ACF: NFDC sent out a memorandum to the 3 Service Areas requesting a review of all PJA data within their jurisdictions. To date, NFDC has received responses from 2 of the 3 service areas. Data from the respondents is currently being analyzed by NFDC's airspace specialists.

ACTION: Mr. George Sempeles to provide a written statement about source and will provide an update at the next ACF.

MEETING 09-01: Mr. John Moore, FAA/NACO, recapped the issue and turned it over to Mr. George Sempeles, FAA/NFDC. Mr. Sempeles reported that data has been received from the Central and Western Service Areas. The data has been added into the NASR database, including all previously discussed requirements. Mr. Sempeles will follow-up with the Eastern Service Area shortly. Representatives from the DoD are satisfied with military data within the database.

ACTION: Mr. George Sempeles will provide an update at the next ACF.

MEETING 09-02: Mr. George Sempeles, FAA/NFDC, reported that the USPA intends to contact OEMs to present the case for having manufacturers include the PJA data in electronic displays and moving maps.

Status will remain open pending confirmation of inclusion of all "official" PJA source by Mr. Sempeles, including final inputs on PJAs from the Eastern Region.

ACTION: Mr. George Sempeles will provide an update at the next ACF.

MEETING 10-01: Mr. George Sempeles, FAA/ATO-R, reported that all current PJA inputs are now included. Mr. Jeffery Weller, FAA/AFS-810 commented there is a pending AC 105-2D for how and who to report PJA information in the future.

Mr. Randy Ottinger of the US Parachute Association expressed appreciation to Mr. Sempeles and the FAA for their support on the initiative.

Ms. Valerie Watson, FAA/AeroNav Svc, asked Mr. George Sempeles to coordinate AC-105 2D with, Mr. Lance Christian, NGA, and Mr. Geoff Waterman, NGA, and herself.

STATUS: CLOSED