APPENDIX F
RUNWAY SAFETY ACTION PLAN

RUNWAY SAFETY ACTION PLAN
Charles M. Schulz - Sonoma County Airport
February 22, 2011

I. Introduction

A. General Description of the Airport.

Charles M. Schulz – Sonoma County Airport (STS) is located 6 miles northwest of downtown Santa Rosa, a city in Sonoma County, California. It serves as a primary commercial airport for the county and surrounding areas of California's "Wine Country" and is a 14 Code of Federal Regulations, Part 139 certificated, towered airport with scheduled domestic air carrier service. The airport is named after Charles M. Schulz, the famous creator of the "Peanuts" comic strip, who lived and worked in Santa Rosa for more than 30 years. The airport's logo is the comic strip character, Snoopy, piloting his biplane doghouse.

STS was relocated from a site about 5 miles southeast of the present airport known as Santa Rosa Air Center and serves as a reporting point today. Air services at the airport have been sporadic but have existed at some level since the 1940s. The airport covers an area of 1,014 acres at an elevation of 125 feet above mean sea level and has two asphalt runways. Runway 1/19 is 5,002 x 100 feet and Runway 14/32 measures 5,115 x 150 feet. The airport master records show that the airport has almost 100,000 aircraft operations and has about 311 based aircraft, including 5 jets and 3 helicopters. Both runways have grooved surfaces. Runway 14/32 has a precision instrument landing system approach procedure with visibility minimums of ½ mile and a 200-foot decision height. Runway 1/19 has established declared distances as a method to achieve Runway Safety Area (RSA) minimums. The airport is designed for Category C aircraft that have approach speeds of less than 141 knots and Group III, having a wing span of less than 118 feet.

The airport also has the Sonoma Air Attack Base, which was established in 1964 and is located at the northeast corner of the airport. Responding on average to 300 calls per year, the Cal Fire air attack fleet consists of OV-10 Bronco and Grumman S-2 Tracker air tankers. The base's immediate response area covers 4,000 square miles and includes Marin County and portions of the Sonoma, Lake, Napa, Santa Clara, San Mateo, Santa Cruz, and Mendocino County Units.

The Air Traffic Control Tower is operated by Federal Aviation Administration (FAA) employees daily from 7:00 a.m. until 8:00 p.m.

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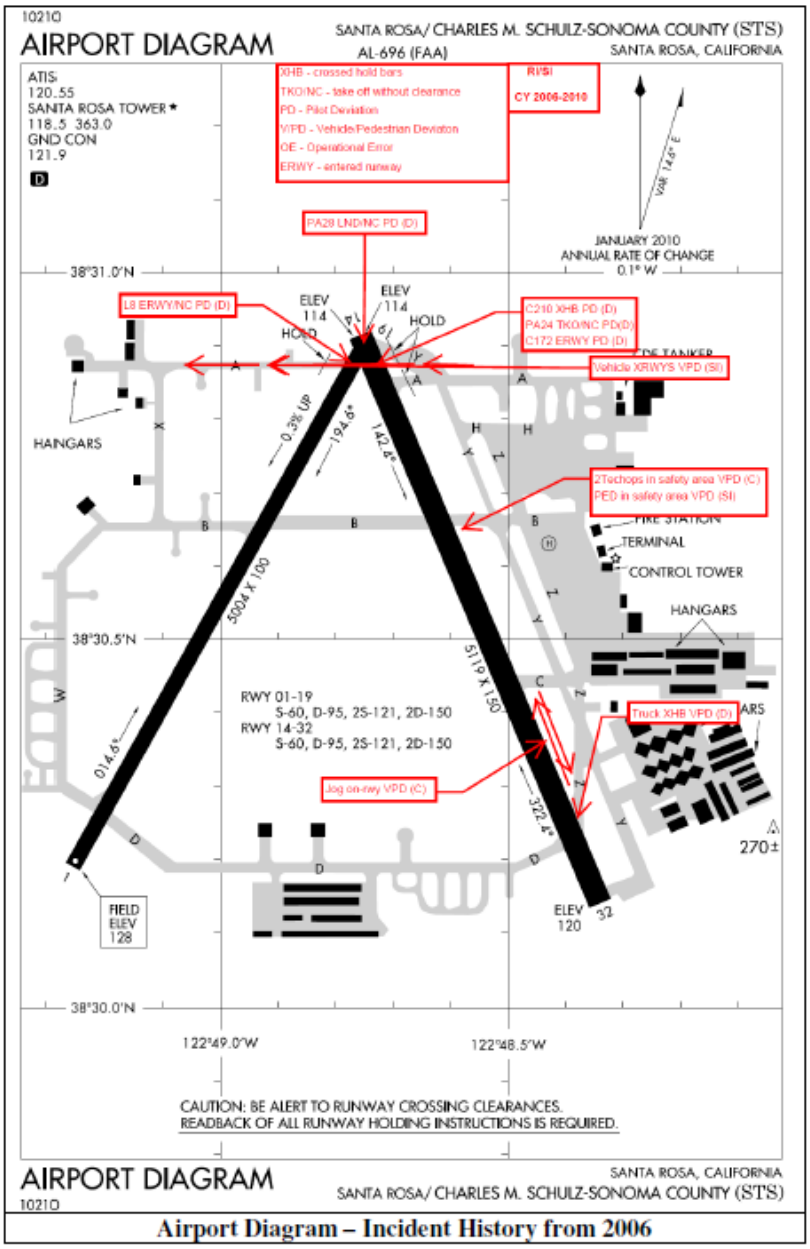
The following is the airport diagram with incident history from 2006.



Airport Diagram – Incident History from 2006

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B. Incident History.

During the past two calendar years, including current year 2011, there were a total of seven runway incursions and zero surface incidents recorded at STS.

There were five runway incursions in calendar year 2010, up from one runway incursion in the previous calendar year. Calendar Year 2010 experienced 3 pilot deviations, all categorized as "D". CY 2009 and current year 2011 each saw 1 pilot deviation, each categorized as "D".

There were 0 operational errors in calendar year CY 2010. In CY 2009 there were also 0 operational errors and 0 operational deviations.

Runway Incursion / Surface Incident Breakdown by Type Category CY 2009 - 2/22/2011

Type Category	Non-Runway Incursions	Runway Incursions	Totals
OE/D	0	0	**0**
PD	0	5	**5**
V/PD	0	2	**2**
Totals	**0**	**7**	**7**

Runway Incursion Breakdown by Severity Category CY 2009 - 2/22/2011

Type Category	A	B	C	D	Unrated	Totals
OE/D					0	**0**
PD				5	0	**5**
V/PD			2		0	**2**
Totals	**0**	**0**	**2**	**5**	**0**	**7**

II. RSAV Meeting Participant List

Chris Diggons, FAA Runway Safety Program, Assistant Manager
John O'Leary, FAA Runway Safety Program, Air Traffic Systems Analyst
Mark Pawlowski, FAA Runway Safety Program, Pilot Analyst
Elliot Brann, FAA Runway Safety Program, Air Traffic Representative
Kurt Haukohl, FAA Runway Safety Program, Airport Operations Specialist
Harlow Voorhees, FAA FAASTeam, Program Manager
Jon Stout, Sonoma County, STS Airport Manager
Steve Lange, Sonoma County, STS Assistant Airport Manager

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Guy Minor, FAA FAASTeam, Program Manager
Bill Gin, FAA SFO ADO, Program Manager
Allie Metcalf, STS ATCT, Air Traffic Manager
Michael Smith, California DOT, Aviation Safety Officer
Jeremy Loughry, Sonoma County, STS Airport Operations Supervisor
Jim McCord, FAASTeam, Local Representative

III. Runway Safety Issues and Concerns

The Runway Safety Team opened a discussion on adding markings for a non-movement boundary marking on Taxiway D east of Runway 14/32, at a sufficient distance from the ILS critical boundary marking, which might keep aircraft from penetrating the ILS critical area in low weather conditions.

During the airfield tours, fire tanker loading station equipment and steel bollards to protect the equipment were noted to be positioned immediately next to a double yellow taxiway edge marking on the stub taxiways between Taxiway H and Taxiway A.

The Runway Safety Team held lengthy discussion on the airport diagram and updates required, including a Hot Spot diagram. Runway Safety and the STS tower manager will take the lead to get this item updated.

The Local RSAT (LRSAT) led by the ATM plans to discuss ways of de-conflicting Taxiway A and Taxiway Y due to pilot confusion at the Runway 14 and Runway 19 threshold/ intersection. Both runways are accessible from Taxiway Y, but only Runway 14 is usable from Taxiway A.

It was noted that Taxiway A is not aligned on the east and west sides of the runway complex. Notwithstanding taxiway naming conventions, it was mentioned that few if any aircraft ever cross the runway complexes using Taxiway A.

IV. Best Practices

1. Joint pilot/controller work group meetings are regularly held to discuss local operational concerns on the airport. This may be best described as an informal outreach program.

2. Airport pilots regularly offer aircraft flights to controllers, and controllers regularly offer tower visits to local pilots in an effort to increase mutual understanding of airport challenges.

3. The Air Traffic Manager regularly attends and participates in local pilot meetings and events, including FAASTeam Wings briefings.

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4. The airport regularly publishes a quarterly newsletter that contains important pilot and tenant notices regarding airport changes and events.

5. The airport has cited pedestrians who have caused vehicle pedestrian deviations and enforces local trespassing laws or ordinances to include fines and suspension of airport access privileges.

V. New Action Items Generated from Latest RSAV Meeting

The following is a list of new action items developed as the result of the latest runway safety visit. The action items are recommendations to mitigate and where possible remove identified risks. The action items are not a means to circumvent established procedures or practices to implement change, and air traffic procedural changes that affect the NAS still require an SRM, changes to the airport marking and sign plans require the appropriate routing/action with the FAA Airports Division, and so on. For the purpose of this action plan all Estimated Completion Dates (ECDs) are deadlines by which the responsible entity will update the Runway Safety Office of the status of action items, including revised ECDs and proposed strategies to satisfy the items. Status categories include Open, Complete, Not Adopted (formerly Closed), and Continuous. All action items will be tracked by AJS-4WP.

In addition, please note that all inquiries and/or concerns regarding this document should be directed to the AWP Office of Runway Safety, telephone numbers 310-725-6680 or -6681, e-mail address 9-AWP-runway-safety@faa.gov.

Action Item Number:	**STS-2011-001**
Estimated Completion Date:	**10/30/2011**
Status:	**Open**

Observation: The published airport diagram is not up to date with physical changes made to the taxiway layout and existing installed airport signage. Additionally, a proposed hot spot chart in draft has not been submitted for publication. The risks associated with incorrect or incomplete airport diagrams include the potential for pilot confusion and may increase the risk of surface incidents, runway incursions, and a loss of pilot situational awareness occurring as a result.

Action Item: Air Traffic Manager (ATM) and Runway Safety Office to draft an updated version of the airport diagram and an initial hot spot chart to submit for publication, following airport and Airport Certification Safety Inspector (ACSI) approval. The NFDC website http://nfdc.faa.gov contains a form for submission of airport diagram change items, including hot spot information, to the existing AeroNav published airport diagrams.

Update: An updated airport diagram draft and proposed hot spot chart was provided to airport and air traffic management the week after the February runway safety visit.

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Office of Interest	Contact
STS Air Traffic Manager	Allie Metcalf
STS Airport Manager	Jon Stout

Action Item Number: **STS-2011-002**
Estimated Completion Date: **12/30/2011**
Status: **Open**

Observation: It was noted that the ILS critical marking on Taxiway D west of Runway 14/32 is not protected by a non-movement boundary surface painted marking, and that aircraft may typically proceed directly to the holding position line marking without ATC contact. Risks associated with aircraft in the ILS Critical Area during instrument conditions or approaches may include signal interference for approaching aircraft.

Action Item: Recommend the airport consider the addition of a non-movement boundary surface painted marking preceding the ILS critical surface painted marking on Taxiway D for aircraft moving toward Runway 14/32. The objective would be for all aircraft to contact ATC prior to entering the ILS Critical Area when the area requires protection. Any potential mechanical changes made to movement areas should be coordinated with the Part 139 Airport Certification Safety Inspector, air traffic, and the airport sponsor.

Office of Interest	Contact
STS Air Traffic Manager	Allie Metcalf
STS Airport Manager	Jon Stout

VI. Review of Previous Action Items

The following are updates to existing action items. Items that were previously reported as completed are not included.

Action Item No: **STS-2005-005**
Estimated Completion Date: **06/30/2013**
Status: **Open**

Action Item: Recommend the airport construct an all-season (paved) perimeter road to eliminate runway crossings of non-essential vehicles such as fuel trucks.

Update: 12/09/2005 e-mail from Assistant Airport Manager states the first phase of the all-season perimeter road around runway 32 was completed last summer. Fuel trucks no longer have to drive on Taxiway Y to get to Apron E. The rest of the perimeter road probably will not be completed due to environmental reasons until fall of 2008.

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08/26/2009 phone call from Assistant Airport Manager confirms this action will be tied into STS' runway extension project, with a new ECD of 06/30/2012.
02/22/2011 – Priority for this project must be pushed further out due to funding issues for runway end reconfiguration and taxiway projects.

Office of Interest	**Contact**
STS Airport Manager	Jon Stout

Action Item No:	**STS-2010-001**
Estimated Completion Date:	**10/30/2011**
Status:	**Open**

Observation: It was noted that many surface painted markings on the airfield are non-standard, have become faded or discolored, and are inconsistently sized and highlighted. The RSAT Team also noted inconsistencies concerning marking placements such as hold position lines, with some perpendicular to the taxiway while others are parallel with the associated protected runway. Airfield marking discrepancies contribute to pilot confusion, and increase the risk potential for a runway incursion to occur.

Action Item: Recommend the airport develop a consistent and comprehensive airfield marking plan, as is required as part of the Airport Certification Manual (ACM) and Airport Certification under FAA Part 139. Additionally, surface markings associated with signs should be re-evaluated throughout the Airport Operating Area (AOA) to determine the correct location for the marking, moving signage as necessary to coordinate with those markings. The RSAT Team also recommends that the airport evaluate the consistency of marking placements such as hold position line markings perpendicular to the taxiway or parallel with the associated protected runway. Additionally, it was noted that enhanced taxiway surface painted lead-in lines have not been completed throughout the airport. Please refer to FAA Advisory Circular (AC) 150-5340-1J, entitled *Standards for Airport Markings,* for details, dimensions, and specifications on each type of airfield marking. Additionally, requirements of the ACM may be found in Title 14, Code of Federal Regulations (CFR), Part 139 and *Certification of Airports.*

Update: 02/22/2011 - Marking plan submitted for ACSI approval, and a substantial number of markings such as enhanced taxiway lead-in lines have been completed. Airport anticipates that all surface painted markings will be updated and complete by August 30, 2011.

Office of Interest	**Contact**
STS Airport Manager	Jon Stout

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Action Item No:	**STS-2010-002**
Estimated Completion Date:	**10/30/2011**
Status:	**Open**

Observation: It was noted that many airport signs, both aboveground and surfaced painted, are non-standard, incorrectly placed, or in poor condition. The RSAT Team also noted inconsistencies regarding sign placements, such as the mandatory runway holding position signs, with some having been positioned perpendicular to the taxiway while others have been positioned parallel with the associated protected runway. Airfield signage discrepancies and sign orientations may contribute to pilot confusion and increase the risk potential for a runway incursion to occur.

Action Item: Recommend the airport develop a complete and consistent airfield sign plan, as is required as part of the ACM and Airport Certification under FAA Part 139. A comprehensive sign plan may include retro-reflective (reflector) systems where the expense or utilization of a fully electrified sign is not justified or required. Additionally, it has been noted that in many locations, a variety of sign types, sizes, and formats were provided, but were incomplete and inconsistently positioned. Please refer to FAA Advisory Circular (AC) 150-5340-18E, entitled *Standards for Airport Sign Systems*, for details, dimensions, and specifications on each type of airfield sign. Additional requirements within the AOA for a sign plan for the ACM and the airport may be found in Title 14, CFR, Part 139, and *Certification of Airports*. Details on FAA signage may be found in *Specification for Taxiway and Runway Signs*, FAA AC 150-5345-44H. Blow are specific signage recommendations noted by the RSAT Team. (This action item replaces items previously reported as complete in STS-2005-002 and STS-2005-003.)

1) Taxiway Z, while marked, is not identified by aboveground signage and may benefit from either aboveground or surface painted signs. Alternatively, parallel ramp Taxiway Z may be eliminated completely west of Taxiway Y (see STS-2010-003 below).
2) Suggest the installation of Runway 14 and Runway 19 destination signs, to be installed on Taxiway Y and just south of the intersection of Taxiway A, visible to pilots taxiing north on Taxiway Y, as well as on Taxiway A, just east of the intersection of Taxiway Y, visible to pilots taxiing west on Taxiway A.
3) Recommend that Taxiway Y be more clearly indentified with aboveground signage. The RSAT Team noted the fronts and the backs of four "VSTR" signs along Taxiway Y that could be utilized to provide location or directional information (see pictures below). Taxiway Y is predominantly marked by exit signs that are typically difficult for pilots to read.

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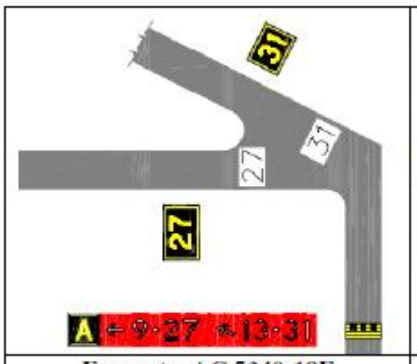
Information sign - Reverse side could provide direction or location information



Information sign - Reverse side could provide direction or location information

4) A combination of direction and location signs, elevated and surface painted, should be installed to guide pilots operating on Taxiways C, Y, and Z near the intersection of those taxiways, since no signage is currently available in this area. Additionally, taxilane identifiers on the hangar rows near this area may assist pilots and ATC when giving location or destination information.
5) Taxiway X on the western side of the Airport Layout Plan and Airport Diagram should be given a new designation, since "X" refers to closed pavement and is not a standard taxiway designator.
6) Mandatory white-on-red surface painted signs are incomplete throughout the remainder of the airport taxiway-runway intersections and are required by December 2010. Additionally, the mandatory surface painted sign on Taxiway Y leading to Runway 19 and Runway 14 should indicate both runways.
7) A black-on-yellow direction sign at the apex of Runway 14 and Runway 19 (photo below) may be inappropriate or non-standard due to its location in the Runway Safety Area (RSA), with the absence of any mandatory sign for Runway 1/19. Recommend the airport review the sign type, placement, and location with its Certification Safety Inspector. The RSAT Team recommends that the airport request to have its sign plan reviewed and approved for its ACM, with the photo below (left) providing an example of standard signage for this area. Note the runway location signs, which the RSAT Team feels are crucial for the prevention of wrong-runway departures.



Excerpts: AC 5340-18E



Runways 14 and 19 direction signs

8) An area in the AOA marked with a white-on-red "No entry" sign appears to be permanently closed on Taxiway W. Entry from the west side of Runway 1/19 is blocked via orange cones (see pictures below). However, this abandoned area has a mandatory runway holding position sign and associated hold position line marking. The markings and signage may partially imply that the area is taxiway available for aircraft use. The airport should consult its Certification Safety Inspector for appropriate signage and marking of this area to prevent any confusion about its availability for normal aircraft use. This may include removing the runway holding position sign and hold bar markings.



Closed Taxiway W, west of Runway 1/19 Hold Position Line with Orange Cones



"No entry" Sign to Taxiway W from D

9) Taxiway E and F do not appear on the Airport Diagrams published by NACO or Jeppesen. The RSAT Team suggests the airport take action to ensure these taxiways are included on the next cycle of publication for NACO and Jeppesen airport diagrams.

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Taxiway E not on Airport Diagram



Taxiway F not shown on Airport Diagram

Update: 02/22/2011 - Sign plan has been submitted to ACSI for approval, with a few signs noted in the action item as having been completed. Airport anticipates that all surface painted markings will be updated and complete by August 30, 2011.
07/18/2011 - In order to complete this item, the airport should consult with FAA Airports Safety & Standards Branch regarding the use of retro-reflective signs.

Office of Interest	**Contact**
STS Airport Manager	Jon Stout

Action Item No:	**STS-2010-003**
Estimated Completion Date:	**02/22/2011**
Status:	**Complete**

Observation: The RSAT Team noted inconsistencies as well as confusion among pilots regarding the location of movement and non-movement areas on the airport. Many pilots may very well be unaware that they are in a non-movement area when operating on portions of Taxiways A, B and D west of Runway 14/32. Tower visibility to some areas of the airport AOA has become blocked by hangars. Additionally, large areas of the airport are a significant distance from the tower, further increasing the difficulty of viewing those locations. Although the non-movement area boundary marking is not a required marking, it is highly beneficial in that it removes any confusion a pilot may have as to when he/she is entering the movement area. It also ensures that those pilots are aware of when they need to be in radio contact with ATC and when they are being provided separation from other aircraft. Removing or reducing pilot confusion decreases the overall risk potential for a surface incident to occur. Pilot orientation reference where ATC separation and control begins and ends is essential to reducing disorientation and preventing or reducing the risk of runway incursions, surface incidents, and aircraft collisions.

Action Item: Recommend the airport meet with the FAA project manager, air traffic manager, and Airports Certification Safety Inspector to discuss those areas of the airport that can be clearly seen and controlled from the tower, and where separation should normally be provided by ATC. The RSAT Team specifically recommends that Taxiways B, D, and A west of Runway 14/32

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become movement area to the maximum extent possible. Areas that cannot be clearly observed from the tower should be appropriately marked and signed as non-movement or non-visibility areas, as determined by the Local RSAT (LRSAT). All of Taxiway B, for example, is visible from the tower and is a frequent route of travel for aircraft from runway to runway. However, the portion of the taxiway between Runway 1/19 and 14/32 has been designated as non-movement area, but no non-movement area boundary markings have been applied to the taxiway surface to clarify this fact. Additionally, the airport should consider designating the section of Taxiway Z that is east of Taxiway Y as non-movement area. Reference AC 150/5340-1J, *Standards for Airport Markings* (Note: A Letter of Agreement [LOA] is normally developed to clarify understanding between the tower and the airport sponsors as to the actual physical location of the movement area.)

Update: 02/22/2011 - Taxiway B was included in the movement area changes, and the north portion of Taxiway Z is removed from the movement area. The remainder of this item is not adopted.

Office of Interest	**Contact**
STS Airport Manager	Jon Stout

Action Item No:	**STS-2010-006**
Estimated Completion Date:	**02/22/2011**
Status:	**Complete**

Observation: The RSAT Team noted several discrepancies between NACO and Jeppesen airport diagrams. Pilot awareness and safety during taxi operations is greatly increased through the use of accurate airport diagrams.

Action Item: Recommend STS airport provide AJS-4WP Office of Runway Safety, in electronic form, a current and up-to-date copy of the airport diagram, preferably in PDF or AutoCad format. AJS-4WP will assist by providing accurate data to the National Flight Data Center (NFDC). The RSAT Team noted the items below for possible clarification or correction on the airport's diagrams: (This action item replaces items previously reported as complete in STS-2005-007
)

1) Suggest the airport confirm that Taxiway X will be re-designated or removed.
2) Closed portions of Taxiway W, B, and D should be depicted as closed.
3) Non-visibility areas of the airport diagrams should be suitably marked for pilots.
4) Hold position line markings are not normally depicted on airport diagrams and may confuse pilots who may consider these as the only mandatory holding points on Runway 14/32. The RSAT Team recommends that these markings be removed from the airport's diagrams.

Update: 02/22/2011 – Closed and rolled into new action item STS-2011-001

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Office of Interest	**Contact**
STS Airport Manager	Jon Stout

Action Item No:	**STS-2010-007**
Estimated Completion Date:	**06/30/2013**
Status:	**Open**

Observation: The RSAT Team observed, and ATC affirmed, that frequent back-taxiing on Runway 1/19, often including full-length back-taxiing, is required by aircraft selecting a Runway 1 departure or landing on Runway 19. Back-taxi operations on runways increase the risk of losing separation between both landing and departing aircraft, especially when the tower is closed. The risk of runway excursions while aircraft turn around, as well as head-on collision conflicts, increases dramatically when airport runways must be utilized as taxiways.

Action Item: Recommend the airport evaluate and consider projects to reduce or eliminate runway back-taxiing and runway crossings. Alternatives outlined in the Airport Layout Plan include connection of Taxiway D to the Runway 1 threshold, and the completion of an extension to Taxiway Y to cross Runway 14/32. The RSAT Team supports projects that reduce or eliminate non-essential back-taxiing and direct 90º taxiway entrances to runway thresholds. Refer to FAA Engineering Brief No. 75, *Incorporation of Runway Incursion Prevention into Taxiway and Apron Design.*

Update: 02/22/2011 – The airport has submitted a proposed project that includes completion of the parallel taxiway full-length for Runway 1/19 and which is anticipated to occur in late spring of 2013.

Office of Interest	**Contact**
STS Airport Manager	Jon Stout

Action Item No:	**STS-2010-008**
Estimated Completion Date:	**06/30/2013**
Status:	**Open**

Observation: The Runway Safety Team discussed the current airport configuration, which consists of co-located thresholds at the Runway 1/19 and Runway 14/32 intersection. A high frequency of pilot confusion involving departures on the wrong runway has occurred in the past, and remains an ongoing, identified airport risk. Additionally, the AOA area surrounding Taxiway A, Y and the co-located thresholds has proven to be a high workload area for ATC. Wrong-runway takeoffs represent an unacceptably risky situation with regard to runway incursions, including head-on aircraft collisions as well as conflicts with landing aircraft.

Action Item: Recommend STS pursue and implement alternative runway configuration(s) projects with the FAA Airports District Office (ADO) Program Manager and Engineering to

eliminate the present condition of co-located Runway 14/32 and Runway 1/19 thresholds. The RSAT Team encourages projects to extend or shorten one or both runways with their associated connections. The primary goal and overall airport objective is to reduce or eliminate potential pilot runway confusion, and to present preferable safe mechanical configurations to the present threshold overlap. The RSAT Team also recommends projects to provide immediate mitigation(s) of the present risk, including surface painted signage, aboveground signage, markings, in-pavement lighting, in-pavement lead-in lighting, runway guard lights, and enhanced markings. Large-sized format signs may also be utilized in locations such as the Taxiway Y entrance to the runway apex so that, for example, pilots may more easily read where the departure point for Runway 19 is located when crossing both thresholds. The RSAT Team encourages STS to work with its Part 139 Certification Safety Inspector to approve appropriate signage, markings, locations, and plans. Refer to FAA Minimum Design Safety Standards, FAA AC 150-5300-13 (*Airport Design)* and FAA AC 150-5340-18E (*Standards for Airport Sign Systems*) for details, dimensions, and specifications on each type of airfield sign. Additional requirements within the AOA for a sign plan for the ACM and the airport may be found in Title 14, CFR, Part 139 and *Certification of Airports.* Details on FAA signage may be found in *Specification for Taxiway and Runway Signs,* FAA AC 150-5345-44H.

Update: 02/22/2011 – The airport has submitted a proposed project that includes extensions of both Runway 14 and 19 north, which is anticipated to occur in late spring of 2013.

Office of Interest	**Contact**
STS Airport Manager	Jon Stout

Action Item No:	**STS-2010-009**
Estimated Completion Date:	**02/22/2011**
Status:	**Complete**

Observation: The RSAT Team noted tall brush, including small trees, and agricultural operations that may interfere with both visibility of signs and line-of-sight to the tower. Pilots may completely miss seeing parts or all of important signs or markings, and ATC may lose sight of aircraft that are taxiing on the airport, increasing the potential risk for a runway incursion or surface incident to occur.

Action Item: Recommend STS increase its frequency of trimming around signs and lights, as well as removal of shrubs, trees, and brush blocking pilot visibility of signs and markings and the tower's visibility of the movement area. Additionally, the RSAT Team recommends that the airport clearly identify any areas of agricultural activity, ensuring that they do not conflict with the movement of aircraft or airport operations, or become habitat for wildlife. Refer to FAA AC 150-5300-13, *Airport Design,* Appendix A17-1, *Minimum Distances Between Certain Airport Features and On-Airport Agriculture Crops.*

Update: 02/22/2011 – The airport has removed or trimmed as much of the overgrown area as possible. Currently, terrain only blocks line of sight to sections of Taxiway D.

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Office of Interest	**Contact**
STS Airport Manager	Jon Stout

Action Item No:	**STS-2010-010**
Estimated Completion Date:	**02/22/2011**
Status:	**Complete**

Observation: It was noted that a lighted and marked heliport on the airport apron near the intersection of Taxiway Z and Taxiway B is not listed in the Airport Master Record (5010) and has been marked with a white FATO (see picture below). Also noted adjacent to the heliport were several improved helicopter parking pads. The RSAT Team was unable to locate a record or finding related to an airspace determination or established traffic pattern, including approach and departure paths associated with this facility. In this instance, heliport incursions and/or surface incidents may occur where fixed-wing or rotor aircraft simply pass through the white marked area without ATC clearance. The risk to helicopter pilots at night, when the tower is closed, is that they may incorrectly assume that adequate protection from incursions is provided by virtue of the facility's layout alone.



Marked and lighted heliport with white perimeter FATO and white TLOF markings

Action Item: The RSAT Team recommends that the airport file FAA Form 7480-1 to formally establish the aeronautical facility (heliport) located near the intersection of Taxiway Z and Taxiway B. The heliport should also be included in the Airport Facility Directory and 5010. Heliports provide at a minimum clear 8:1 approach and departure surfaces, with those imaginary surfaces normally depicted on the ALP. Additionally, the RSAT Team recommends that heliports on airports be located in non-movement areas so the normal ingress and egress of passengers may occur without escort. Finally, properly establishing this new aeronautical facility may require both NEPA and CEQA. Alternatively, the airport may choose to establish a helicopter parking area in place of the current heliport. Helicopter parking facilities are normally marked with yellow perimeters and do not require airspace or approach/departure surfaces. In addition, while heliport lighting is amber, helicopter parking areas have their perimeters delineated with blue lights.

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Update: 02/22/2011 – The airport has removed the lighting and the "H" marking, and has NOTAM'd the facility as closed. The remaining white circle will be obliterated in conjunction with an upcoming pavement project.

Office of Interest	**Contact**
STS Airport Manager	Jon Stout

Action Item No: **STS-2010-011**
Estimated Completion Date: **02/22/2011**
Status: **Complete**

Observation: It was noted that the area around Taxiway A, Y, and the runway intersections of 1/19 and 14/32 has been a location for confusion among pilots. Pilots have also pointed out that ground traffic exiting the T-hangar/shade hangar area near Taxiway C and Taxiway Z presents a potential collision risk and is within a non-visibility area for the tower. Air traffic has identified these areas as hot spots on the airport. Published hot spot charts alert pilots about areas of frequent confusion and improve orientation and operational safety, and decrease risks associated with those highlighted areas.

Action Item: AJS-4WP Office of Runway Safety to coordinate with STS air traffic and airport management for the purpose of creating a hot spot chart for the airport. Coordination will be made with NACO and Jeppesen for inclusion in their publications.

Update: 02/22/2011 - Rolled into new action item STS-2011-001

Office of Interest	**Contact**
STS Airport Manager	Jon Stout

The following action items from previous visits are complete:

STS-2005-001	**STS-2005-006**
STS-2010-004	**STS-2010-005**

The following action items from previous visits have been closed and rolled into new action items:

STS-2005-002 **STS-2005-003** **STS-2005-004** **STS-2005-007**

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