### SURVEY AND QUALITY CONTROL PLAN FAA ADVISORY CIRCULAR 150/5300-16A

AIRPORT NAME: Suffolk Executive Airport

LOCATION: SUFFOLK, VA AIRPORT IDENTIFIER: SFQ

SURVEY SPECIFICATIONS: FAA ADVISORY CIRCULAR 150/5300-16A

SUBMITTER: NATIONAL GEODETIC SURVEY

### **PROJECT SUMMARY:**

To establish permanent geodetic control located on the Suffolk Executive Airport and designate PACS/SACS by tying to the NSRS.

### **AIRPORT SUMMARY REPORT:**

Airport Point of Contact: Kent Marshall, Airport Manager 757-514-4411

Airport Controlled?: No Escort Required?: No

Radio Frequencies: CTAF:122.7

The PACS and both SACS are all intervisible with each other.

#### **RECONNAISSANCE:**

The following survey and quality control plan is based on the findings of a reconnaissance mission conducted on 12-15-2008.

STATION NAME	PID	TYPE	AGENCY	HORIZ ORDER	VERT ORDER	STABILITY	CONDITION AT RECOVERY	COMMENTS
SFQ A (Proposed)	N/A	PACS	NGS			В	TO BE SET	SS ROD MARK
SFQ B (Proposed)	N/A	SACS	NGS			С	TO BE SET	DISK IN CONCRETE
								MONUMENT
J 324 RESET 1983	FX2636		NGS	3	3?	С	GOOD	EXISTING BENCH
(Proposed)								MARK
PASCALE	FX4376	CBN	NGS	В	3	С	GOOD	HARN TIE
F 468	FX2236		NGS		1	В	GOOD	BM TIE
G 468	FX2233		NGS		1	В	GOOD	BM TIE
WEATHER	DG9068		NGS	В	1	С	GOOD	BM TIE* (>25KM)
VA	DJ5202	CORS	NGS	CORS	CORS			CORS TIE
GLOUCESTER PT								
CORS ARP								

<sup>\*</sup> An additional receiver will be utilized for data collection as a supplemental bench mark tie.

### PROPOSED SURVEY PLAN:

We will set new monumentation SFQ A as a PACS and SFQ B as a SACS. In addition we will establish J324 RESET 1983 as the additional SACS. SFQ A will be a stainless steel rod mark. SFQ B will be a bench mark disk set in top of a concrete monument. Each mark will be constructed to the specifications of FAA Advisory Circular 150/5300-16A.

Positions for the PACS/SACS will be established according to the specifications of FAA Advisory Circular 150/5300-16A.

#### FIELD SURVEY METHODS:

### GPS Observation Scheme (UTC):

#### Day 1

1400-2100 – Observe proposed PACS – SFQ A (1<sup>st</sup> CORS Tie)

1400-2100 – Observe PASCALE – (HARN Tie)

1400-1600 – Observe proposed SACS – SFQ B (1<sup>st</sup> SACS-SFQ B Tie)

1400-1600 – Observe proposed SACS – J 324 RESET 1983 (1<sup>st</sup> SACS – J 324 RESET 1983Tie)

1700-2100 – Observe benchmark F 468 (1st Benchmark F 468 Tie)

1700-2100 – Observe benchmark G468 (1<sup>st</sup> Benchmark G468 Tie)

1700-2100 – Observe benchmark WEATHER (backup benchmark tie)

### Day 2

1630-2030 – Observe proposed PACS – SFQ A (2<sup>nd</sup> CORS Tie)

1700-1900 – Observe proposed SACS – SFQ B (2<sup>nd</sup> SACS – SFQ B Tie)

1700-1900 – Observe proposed SACS – J324 RESET 1983 (2<sup>nd</sup> SACS – J 324 RESET 1983 Tie)

Session duration is fixed, start and end times are approximate depending on travel times, dates of survey, satellite status, weather conditions, airport logistics, etc.

### Equipment:

We will be using Trimble R8 GNSS dual frequency, survey grade GPS receivers for performing the GPS observations on the survey detailed above. Each receiver has been updated to the latest firmware version (V3.82).

Manufacturer/Brand	Model Number	Serial Number
TRIMBLE	R8_GNSS	4639122441
TRIMBLE	R8_GNSS	4631120628
TRIMBLE	R8_GNSS	4639122509
TRIMBLE	R8_GNSS	4639122468
TRIMBLE	R8_GNSS	4631120635

### Photos and Forms:

Digital photographs will be taken, formatted and named as required by the AC and will be provided in the final project submission.

Standard FAA GPS Observation logs will be completed for each occupation of a station. A digital scan of these forms will be included in the final project submission.

#### **OFFICE SURVEY METHODS:**

All data processing will be done using the latest version of PAGE-NT, ADJUST and UTILITIES, GEOID, and WINDESC available from the NGS website. The NGS website will be visited and required software downloaded and installed just prior to the processing of the data.

All final data and the Final Report as detailed in the AC will be generated and processed by NGS.

### **QUALITY CONTROL MEASURES**

#### Field:

Fixed height tripods will be checked for good working order and bubble levels will be calibrated prior to movement to the field.

Tripods will be checked for plumb at start, during and end of each observing session.

Tripods will be secured with sand bags if conditions warrant.

Internal storage for static observations will be emptied from receivers to prevent overcapacity and potential loss of data prior to movement to the field.

Standard FAA GPS observation log sheets will be completed for each occupation of a station.

Station photos, descriptions, and visibility diagrams not included in this plan will be performed at time of survey and submitted with the final report.

Field forms will be checked for accuracy and completeness and all manual computations will be checked and initialed. Manual data computer entries will be checked. Final project data will be submitted in NGS Bluebook format or in the appropriate format specified in the AC-16A. The check of file formats of deliverable B-file, G-file and D-file will be achieved through comprehensive review of the files and by utilizing NGS bluebook file checking programs and Windesc program checking tools. All reports and deliverable data will be checked for accuracy and completeness.

### Office:

All field measurements will be downloaded daily from the data collector (internal R8 static storage) to a field computer.

A backup copy of the downloaded data will be placed on the office server.

Field measurements recorded on the observation forms such as antenna height and station name will be checked against data retrieved from the data collector (internal R8 static storage).

Raw data will be archived and a copy of that data will be used for processing and adjustment.

All manual data entries on field forms and computer entry will be checked and initialed. A check of all file formats will be completed. A check of all reports for completeness will be executed prior to final report submittal.

### **SCHEDULE:**

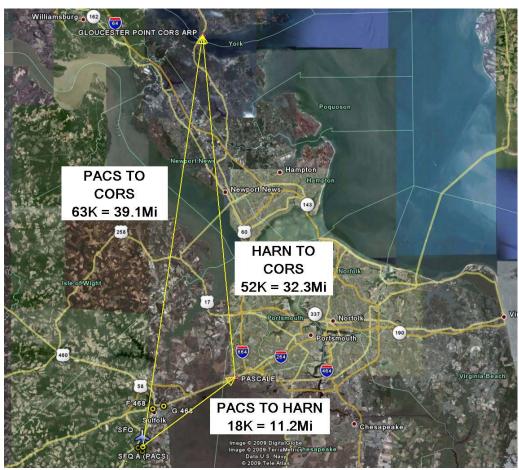
Estimated Start Date: 3/2/09

Estimated Completion Date: 3/27/09



AIRPORT CONTROL PLOT





# Federal Aviation Administration

# Airport Surveying-GIS Program

# Station Location Sketch and Visibility Diagram

			Diagrain
Airport Name or Location Na	me: SUFFORK EXEC	UTILE AIRPOINT	
Station Designation	Permanent Identifier (PID)	Airport Location Identifier	Date
SFQA		SFQ	12/15/08
× PACS SACS		BM FBN	CBN
Other (specify):		Organization: N45	
Station Location Sketch  Station Location Sketch  GENE BOLTON 93	Pano Proposition Ward No.	74.00	
Monument Stabilit	Monument Infor	Mation Sketch of Disk	
	cellent C Good	Sketch of Disk	
D Poor	C Good		
Monument is Recessed cm	<u>Disk is set</u> in bedrock	/	
Flush with ground	in concrete		
Projecting cm	In structure		\
General Station Location (describe the airline distances to three towns or ma			\
station is located	* *- AND THE COURT OF THE COURT		1
News: 20.32 ml n	OUTH OF NEW PORT		/
3.7 MI SW OF SUFFOCK	AT THE SUFFERE		
EXECUTIVE AIRPORT : EAS			
perunay 500th of Rwy	4-45 NORTH		
The state of the s			

		Station De	Station Designation: 5FQ A			
Land Ownership:	> Public		Private			
Land Owner Name ( Street Address (200)	Land Owner	Contact Informatio	n (optional)			
City Suffock Telephone Number Email		State: \/				

To Reach Narrative (describe using leg by leg distances and directions from major road intersection to the mark): To reach the station from the intersection of 5W 5UFFOLK BYPASS/US-13 5/US-58 AND CAROLINA RD US-13/VA-32 GO SW I. 5 MI ON CAROLINA RD US-13/VA-32 TO AIRPORT RD. GO SE O.3MI ON AIRPORT RD TO GENE BOLTON DR. GO EAST ON GENE BOLTON DRIVE TO SUFFOCK EXECUTIVE AIRPORT. CONTACT AIRPORT MANAGER KENT MARSHALL @ (757) 514-4411 TO GAIN ACCESS TO THE RAMP VIA A GATE SW OF THE TERMINAL BUILDING. FROM THE GATE, GO NE TO THE RAMP. GO SE 212 FT TO A TAXIWAY LEADING TO AN ABANDONED RUNWAY. GO NE O.13 MI TO THE ABANDONED RUNWAY VIA THE ABANDONED TAXIWAY. GO NAW O.14 MILES TO THE STATION NE OF THE ABANDONED RUNWAY IN THE GIRKS SY AREA.

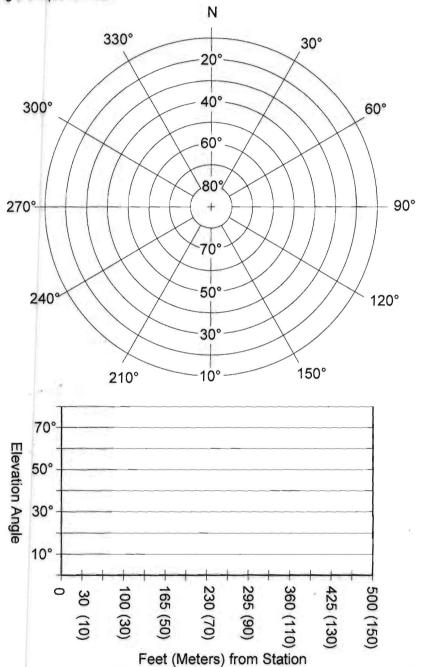
Monument Description and Measurements (provide at least three (3) measurements to permanent, identifiable nearby objects and a description of the monument size, shape, height etc.): The station is NEAR THE CENTER OF THE AIRPORT, NE OF AN ABANDONED RUNWAY. 119. 7 m (392.7FT) 5W OF THE SOUTH CORNER OF A FENCE SURROUNDING A WEATHER STATION. 64.5 m (211.6FT) SOUTH OF THE CENTER OF A TRACK ROAD LEADING TO THE WEATHER STATION. 6.8m (22.3FT) NE OF THE CENTER OF A 4 X 4 FOOT CONCRETE ABANDONED RUNWAY LIGHT PAID.

## Station Visibility Obstruction Diagram

Station Designation: SFQ A

√ Check if no obstructions above 10°

Using the plan and profile views below, identify potential obstructions to satellite visibility at the station. In the plan view use a horizontal line to indicate the azimuth. Place the center of the line at the elevation angle of the obstruction above the horizon. In the profile view use a vertical line to indicate the distance the obstructions is from the station. Extend the line up to the appropriate elevation angle. Identify each obstruction using a unique number.



County:

Agency or Company: NGS

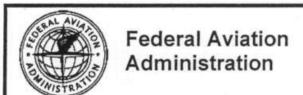
Agency or Company Telephone Number:

Reconnaissance By: K. JORDAN

m

Height above mark (meters): 20

(757 ) 441 -5460



# Station Location Sketch and Visibility

			Diagi	ram
Airport Name or Location Name:	SUFFOCK EXE	CUTIVE AIRPORT		
Station Designation Perm	nanent Identifier (PID)	Airport Location Identifier	Date	
JFQ B		SFQ	12/15	108
PACS SACS Other (specify):		BM FBN Organization: NGS	CBN	
Station Location Sketch	,			
	RUNWAY LIGHT SEQ B	3 riviny		
Manument Stability Quality	Monument Inforn	nation Sketch of Disk		
Monument Stability Qualit  A Most Stable B Excellent	C Good	Skelch of Disk		
D Poor	Disk is set ock sete ture al location include atures): The  SAREAKE THE			

		Station Desig	nation: <u>5FQ B</u>	
Land Ownership:	X Public		Private	
	Land Owner Contact	ct Information (o	ptional)	
Land Owner Name C	ity of Suffolk			
Street Address 1200 6	hene Rolton Drive			
City Sufford		State: VA	Zip Code: 23+34	
Telephone Number	(757 ) 514 -4	HII Fax:	( ) -	
Email				

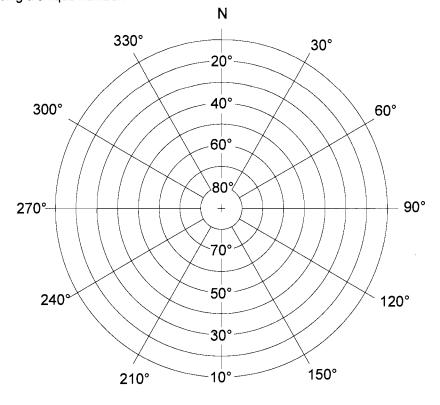
To Reach Narrative (describe using leg by leg distances and directions from major road intersection to the mark): To reach the station from the intersection of SW 50470LK BYPASS / US-135 / US-58 AND CARDLINA RD US-13/VA-3Z GO SW 1.5M1 ON CARDLINA RD US-13/M-3Z TO AIRPORT RD. GO SE 0.3M1 ON AIRPORT RD TO GENE BOLTON DEWE. GO EAST ON GENE BOLTON DEWE. TO SUFFORK EXCLUTIVE AIRPORT. CONTACT AIRPORT MANAGER KENT MARSHALL @ 754 514 4411 TO GAIN ACCESS TO THE RAMA VIA A CIATL SW OF THE TERMINAL BURDING. MOM THE GATE, GO NE THE RAMP. GO SE ON THE RAMP AND CONTINUE SOW ON THE RAMP TO A TAXIWAY LEADING TO RWY OH. GO SE ON THE TAXIWAY AND ACROSS THE THRESHOLD OF RWY OH. GO SE ON THE TAXIWAY AND ACROSS THE THRESHOLD OF RWY OH TO AN ABANDONED TAXIWAY.

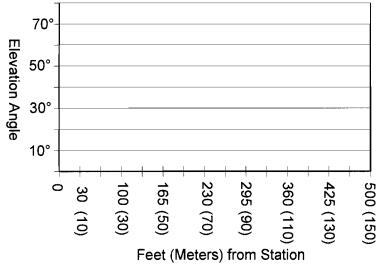
Monument Description and Measurements (provide at least three (3) measurements to permanent, identifiable nearby objects and a description of the monument size, shape, height etc.): The station is NEAR THE SOUTH END OF RWY 4, NW OF AN ABANDONED TAXIMAY. 45, 7M (149.9FT) E OF THE 1<sup>ST</sup> RUMMAY LIGHT. 41.2M (135.ZFT) SE OF THE SE CROSE OF THE RUMMAY. 10.5M (34.4FT) N OF THE CENTERLINE OF AN ABANDONED TAXIMAY

## Station Visibility Obstruction Diagram

Check if no obstructions above 10°

Using the plan and profile views below, identify potential obstructions to satellite visibility at the station. In the plan view use a horizontal line to indicate the azimuth. Place the center of the line at the elevation angle of the obstruction above the horizon. In the profile view use a vertical line to indicate the distance the obstructions is from the station. Extend the line up to the appropriate elevation angle. Identify each obstruction using a unique number.

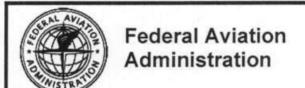




County:
Agency or Company:
Agency or Company Telephone Number:

Reconnaissance By: K JORONN Height above mark (meters): (757 ) 441 -5460

m



# Station Location Sketch and Visibility Diagram

	Diagram
Airport Name or Location Name: 5 UF FOLK EX	ECUTIVE AIRPORT
Station Designation Permanent Identifier (	PID) Airport Location Identifier Date
J 324 RESET 1983 FX 2636	SFQ 12/15/08
PACS X SACS TSM	BM FBN CBN
Other (specify):	Organization: NG5
Station Location Sketch	
Fence NGS NAW @ eng NGS NAW  Bate NGS NAW  1 324 RESE	AK KWY SFQ
Monument	Information
Monument Stability Quality	Sketch of Disk
A Most Stable B Excellent C Good D Poor	
Monument is Disk is set	
Recessed cm in bedrock Flush with ground in concrete	
Projecting cm In structure	
General Station Location (describe the general location include	
airline distances to three towns or mapped features): The station is located	
AT SUFFOCK EXECUTIVE AIRPORT 3.5MI SW OF SUFFOCK, 11.3MI SW OF	/
Prq, 15.5 m w of CPK	
,	

ı			Station Designa	ation: 3324 RESCT 1983					
	Land Ownership:	✓ Public		Private					
		Land Owner Contact	t Information (opt	tional)					
	Street Address 1200 GENE BOLTON DRIVE								
	City Suffork	40.0 =		Zip Code:23434					
	Telephone Number (	757)514 -4		( ) -					
	Email								
NEW	To Reach Narrative (des	scribe using leg by le	eg distances and	directions from major road					
	intersection to the mark)	) : To reach the state	on irom the inters	SECTION OF					
		- A							
	3.3 M/SW								
	SUFFOLK E	EXECUTIVE	AIRPORT	NEAR ENDOF					
	RWY 7_SA	FQ,							
	2.0m11 EC	SW ALONG.	US HWY	13 FROM RK XING					
	INGUEFOL	K to do	+ AIRPORT	-Rd.; TURN					
				PLOCEED 0135115					
				T OFFICE. GO LEP					
-				Le OF OFFICE;					
	PASS Throws.	h gate ont	O APTON Y	+ Proceed 0.05 MI					
	Noith to 77	XIWAY AnTI	URN LEFT	ON TAXINAY A + SFO + MAKK ON L					
				<u>-SF@ + MAEK oN 2</u> three (3) measurements to					
	•		· •	ne monument size, shape,					
	height etc.): The station			, ,					
			NE	EW DESCRIPTION					
	1255 FT	SE OF NGS P	K Nall +Wa	when "existing"					
		LLEND RU	_						
				Nail + WASHER					
				IR ON TAXIWAY,					
	@ J	ct END R	にいりフーら	FQ + TAXIWAY A					
	228 FT E (	E chain LIN	k Fence	Gate which is					
	190	7 FT SWa	& ELEND	RWY7_SFQ					
	80 FT S	F OF SEE	ING OF	RWY7_SFQ					
			.00 <u>~</u> 0  -	RWY /_SFQ					

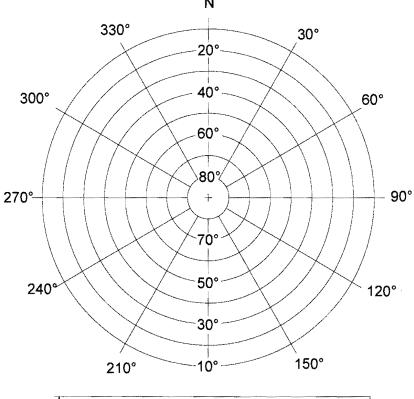
198>

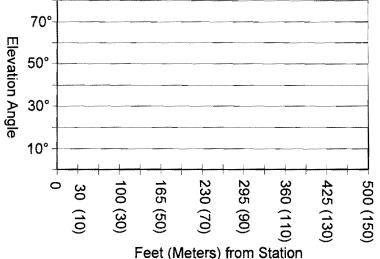
Station Visibility Obstruction Diagram

Station Designation: J324 RESET

Check if no obstructions above 10°

Using the plan and profile views below, identify potential obstructions to satellite visibility at the station. In the plan view use a horizontal line to indicate the azimuth. Place the center of the line at the elevation angle of the obstruction above the horizon. In the profile view use a vertical line to indicate the distance the obstructions is from the station. Extend the line up to the appropriate elevation angle. Identify each obstruction using a unique number.





County:

Agency or Company: NG5

Agency or Company Telephone Number:

Reconnaissance By: GNOTTAGE
Height above mark (meters):

m

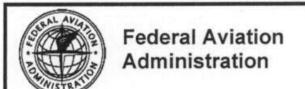
Height above mark (meters): (757) 441 5460

Federal Aviation Administration

# Survey Station Description and Recovery

						Form
Station Designation	4 Char Ident	tifier		State	C	ATT County
1 324 RESET 1983				VA		Suffork
Permanent Record Identifier (fro	m NSRS )		Eleva			Country
Fx 2636	<del> </del>	Feet		Meters Z1.17		
Latitude N 洗。 なひ	· <del>'</del> 48		W	760	Longitu გ(	ude රු ' දීරු "
Original Description (I Preliminary (mark has not A newly set mark A recovered mark Established by: Chief of Party (initials) Date  Monument Stability (I A Of the most reliable reliab	Check one) nature; expected esition and ubject to ground		Ful Ful Par Establ Chief of Date:	I description I description	of a state of a state on of a	condition of found mutilated
	Setting Inform	nation				
Marker Type Rod Disk Other:  Rod Depth ft. m Sleeve Depth ft. m	Setting Type Bedrock Concrete Other: Stamping: Agency Inscript Monument is:		J 3 X Flu Pro	ency Inscripting NGS CGS Other:  24 PESC sh ojecting cessed		1

Special Type (Check all applicable)  F Fault monitoring site  T Tidal station Control Station (FBN/CBN/Benchmark) Airport Control Station (PACS/SACS)  Yes No Mark suitable for GPS use?  General Station Location (describe the general location features): The station is located  3,3 M/ SW FROM SUFFEEXECUTIVE AIRPORT N  RWY 7_SFQ	FOLK VA ON SUFFOUK
To Reach Narrative (describe using leg by leg distance	ces and directions from major road intersection to the
mark): To reach the station from the intersection of	•
Proceed 0.35 Miles  Alrport Office; Go heft of  Side (risht) of office!  Sate onto Apron; tak  Proceed 0.05 mi North to  At Proceed Past hanger  Monument Description and Measurements (provide a identifiable nearby objects and a description of the miles.	PHON AINPONT ROAD and.  SE total Left Leading to  3.3 m; East to gate on E  Termina I Blds + Pass Thru  Ke a Left Immediately L  taxiwa, A; Tunn Lefton TAXIW  s to Hold Ray Ruy T-SFD to  t least three (3) measurements to permanent, MACK  conument size, shape, height etc.): The station is on
E and Ray 7_SFQ	
14/13 FT WNW OF NGS	PKNail + Washel @ SWend
DE IMXIWAY A Hold b	par Fox Ruy 7_SFQ
199 FT Sward ENF	Rwy 7-5FQ
SO FT SEOFSE ED	



# Station Location Sketch and Visibility Diagram

			Diagram
Airport Name or Location Name: HA	MPTON ROADS	EXECUTIVE AIRPORT	
그는 그는 그는 그리를 위한 없는데 없는 사람들이 없는데 가는데 보고 있는데 그리고 있는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하	nent Identifier (PID) +376	Airport Location Identified	Date 12/15/08
PACS SACS Other (specify):		BM FBN Drganization: NGS	∠ CBN
Station Location Sketch	- TN	PASCALE FX4376  3.5	
Monument Stability Quality	Monument Inform	Sketch of Dis	k
A Most Stable B Excellent D Poor	e location include ures): <i>The</i>		

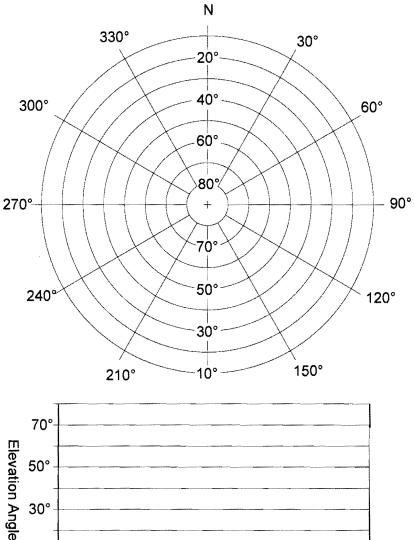
	Station Designation: PASCALE
Land Ownership: X Public	Private
Land Owner Contac	t Information (optional)
Land Owner Name Street Address City Telephone Number ( ) - Email	State: Zip Code: Fax: ( ) -
To Reach Narrative (describe using leg by intersection to the mark): To reach the state	eg distances and directions from major road ion from the intersection of
SEE DATASHEE	ET .
	(provide at least three (3) measurements to a description of the monument size, shape,
SEE VATASHEE T	-

### Station Visibility Obstruction Diagram

Station Designation: PASCALE

Check if no obstructions above 10°

Using the plan and profile views below, identify potential obstructions to satellite visibility at the station. In the plan view use a horizontal line to indicate the azimuth. Place the center of the line at the elevation angle of the obstruction above the horizon. In the profile view use a vertical line to indicate the distance the obstructions is from the station. Extend the line up to the appropriate elevation angle. Identify each obstruction using a unique number.



500 (150) 425 (130) 425 (130) 360 (110) 230 (70) Feet (Meters) from Station

County: Agency or Company: Nas

Agency or Company Telephone Number:

Reconnaissance By: たいへ づいられい Height above mark (meters): 2.0

m

(757) 441 - 5460

	Federal Avi Administra	
Station D	esignation	4

# Survey Station Description and Recovery

						1 01111
Station Designation	4 Char Id	dentifier	State		CITY	Gounty
PASCALE				VIRGINIA		·
Permanent Record Identifier (fro	m NSDS \			ation	<u>ර</u>	Country
remailent Necord Identilier (110	III NORO )	Fee		Meters	-	Country
Fx4376		1 66		Meters		
Latitude	•	_	•		Longitude	
N 360 46	4	5 "	W	76°	ZG '	35 "
Original Description (Compared Preliminary (mark has not A newly set mark  A recovered mark  Established by: Chief of Party (initials) Date /  Monument Stability (Compared Party (Compared Party (Initials))  Monument Stability (Compared Party (Initials))	been set yet / Check one)		Fu Fu Pa Estab	Recovery Desc Il description of Il description of Irtial description Ilished by: of Party (initials Recovery Con Recovered in	f a station f a station n of a station s) / dition (Che	not NSRS in NSRS on not NSRS  / eck one)
B Will probably hold poselevation well  C May hold well, but sul		nd	N P	Not recovered		
movement D Of questionable or un			×	Surface mark	·	
	Setting Inf	ormation				
Marker Type Rod Disk Other:  Rod Depth ft. m Sleeve Depth m	Setting Bedrock Concrete Other: Stamping: Agency Ins	e cription:	X Fit	ency Inscription NGS CGS Other:  ush ojecting ecessed	cm cm	

Special Type (Check all applicable)	Transportation (Check one)
F Fault monitoring site	C Car
T Tidal station	P Light Truck, (pickup, carry-all etc.)
Control Station (FBN/CBN/Benchmark)	X Four wheel drive vehicle required
Airport Control Station (PACS/SACS)	Other:
Yes No Mark suitable for GPS use?	Yes No Pack Time?
	on include airline distances to three towns or mapped
features): The station is located	on morade annine distances to three towns or mapped
,	
JEE DATASHEO	ET
	·
To Reach Narrative (describe using leg by leg distant	ces and directions from major road intersection to the
mark): To reach the station from the intersection of	
SEC DATA SHE	ET
Manufact Description and Managements (provide a	t locat three (2) magazzamenta to permanent
Monument Description and Measurements (provide a identifiable nearby objects and a description of the me	
	, , , , , , , , , , , , , , , , , , ,
SEE DATASHO	EET

	Federal Aviation Administration
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# Station Location Sketch and Visibility Diagram

Airport Name or Location Nar	me: CITY OF SUFFOR	K	
Station Designation	Permanent Identifier (PID)	Airport Location Identifier	Date
	FX2236		12/15 108
PACS SACS	TSM	BM FBN	CBN
Other (specify):		Organization: NAS	
Station Location Sketch	/ /		
1	- / /		
/	/		
/	4	PRENTIS:	STREET
	\$ 18 F468	SIDEWAK	
1 11	TO EWITHE	55	
	TOST TEST		
1	A Less	SEABOARD RR	
111111111	1/ /111111111	1111111111111	<del>                                      </del>
It to the training	1 / 1   1   1   1   1   1   1   1   1	<del></del>	
7 7 7 7 7 7 7 7 7	<del>-/+++++++</del>	+++++++++++++++++++++++++++++++++++++++	1111111
The second state of the se	Monument Infor	motion	ESTERNISH TO
Monument Stabilit		Sketch of Disk	D. 4500 D. HITCH PUTRISH SEE
A Most Stable B Exc	cellent C Good		
D Poor Monument is	Disk is set		
Recessed 45 cm	in bedrock		
	in concrete In structure		
General Station Location (describe th			
airline distances to three towns or ma			1
station is located  0.2 MI W 3+ SU	FROIK		1
3.65 MI NNE OF	SFOR		
8.19 MI SW OF PI	VG		

	Station Designation: デ46名						
Land Ownership:	X	Public			Private		
	Land	Owner	Contact J	nformation (o	ptional)		
Land Owner Name	CITY	of su	offolk				
Street Address							
City Suffolk				State:	Zip Code:		
Telephone Number	(	)	-	Fax:	( )	-	
Email							

To Reach Narrative (describe using leg by leg distances and directions from major road intersection to the mark): To reach the station from the intersection of CONSTANCE RD AND NMAIN ST, TURN SOUTH ON MAIN ST AND GO 0.29 MI TO THE INTERSECTION OF PINNER ST AND NMAIN ST.

TURN RIGHT AT PINNER ST AND CONTINUE WEST FOR O. 16 MILLES TO THE INTERSECTION OF PINE ST AND PINNER ST. STATION IS SW OF THE INTERSECTION OF PINE ST AND PINNER ST. IN

Monument Description and Measurements (provide at least three (3) measurements to permanent, identifiable nearby objects and a description of the monument size, shape, height etc.): The station is 49 FT (149m) SW OF THE 96 PINE STREET.

22 (GFM) NE OF THE 96 PINE STREET. 54' NE OF THE NORTHERNMOST RAIL OF RAILWAY, 17 (62m) SW OF THE SW COCNER OF A SIDEWALK APRON. 3' (0.9m) E OF A POWER RULE MARKED XD-41.

1' (0.3m) WEST OF A WITNESS POST. THE MARK 15 RECESSED 45cm

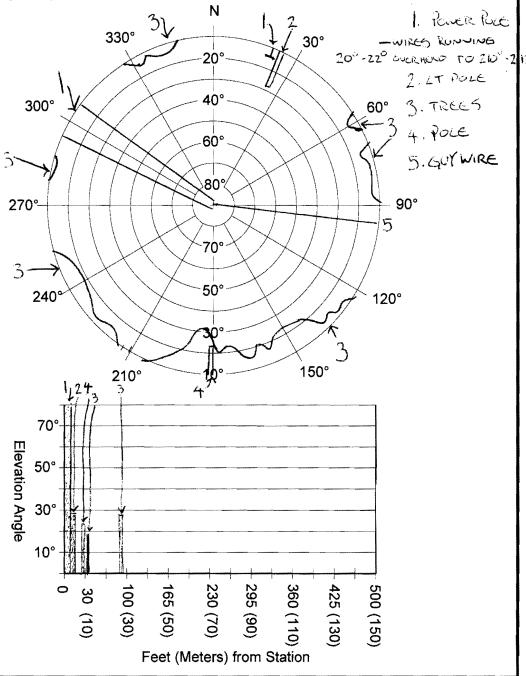
BELOW GROUND LEVEL.

## Station Visibility Obstruction Diagram

Station Designation: F468

Check if no obstructions above 10°

Using the plan and profile views below, identify potential obstructions to satellite visibility at the station. In the plan view use a horizontal line to indicate the azimuth. Place the center of the line at the elevation angle of the obstruction above the horizon. In the profile view use a vertical line to indicate the distance the obstructions is from the station. Extend the line up to the appropriate elevation angle. Identify each obstruction using a unique number.



County:

Agency or Company: Na5

Agency or Company Telephone Number:

Reconnaissance By: んしゅん

Height above mark (meters):

2 m

(757

441 - 5460

	Federal Aviation Administration
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# Survey Station Description and Recovery

Station Designation	4 Char Identific	ier		State	0177	County
F468			VIRG	AIMI	50-	ffork
Permanent Record Identifier (fro	m NSRS )		Eleva			Country
T-100%		Feet		Meters		
FX 2236	37	3.09		10.046		
Latitude N 36。 44	02 "		W	76 °	ongitude 35 '	) 
Original Description (0 Preliminary (mark has not A newly set mark A recovered mark Established by: Chief of Party (initials) Date / :	•		Ful Ful Par Establ	Recovery Descri Il description of a Il description of a rtial description lished by: of Party (initials)	a station a station of a stati	not NSRS in NSRS
Monument Stability (Check one)  A Of the most reliable nature; expected to hold well  B Will probably hold position and elevation well  C May hold well, but subject to ground movement  D Of questionable or unknown reliability			G N P	Recovery Cond Recovered in g Not recovered Poor, disturbed Surface mark I	good cor or not fo	ound tilated
	Setting Informat	tion				
Marker Type Rod Disk Other: Rod Depth ft. m Sleeve Depth m	Setting Type Bedrock Concrete Other: Stamping: F 44 Agency Inscription Monument is:	<del>68</del>	I935		cm cm	

	5
Special Type (Check all applicable)	Transportation (Check one)
F Fault monitoring site	C Car
T Tidal station	P Light Truck, (pickup, carry-all etc.)
Control Station (FBN/CBN/Benchmark)	X Four wheel drive vehicle required
Airport Control Station (PACS/SACS)	Other:
X Yes No Mark suitable for GPS use?	Yes No Pack Time?
	on include airline distances to three towns or mapped
features): The station is located	
To Reach Narrative (describe using leg by leg distant	ces and directions from major road intersection to the
mark): To reach the station from the intersection of	·
Monument Description and Measurements (provide a	
identifiable nearby objects and a description of the me	onument size, snape, neight etc.). The station is
	į
	<b>I</b>
	1

# Federal Aviation Administration

# Airport Surveying-GIS Program

# Station Location Sketch and Visibility

	Diagram
Airport Name or Location Name: VA / CITY O	t Suffock
Station Designation Permanent Identifier (	PID) Airport Location Identifier Date
G468 FX2233	12/15 108
PACS SACS TSM	✓ BM FBN CBN
Other (specify):	Organization: NG5
Station Location Sketch	Telephone PoleNo 304B
RRXINS SISN	× 6-468
	Information
Monument Stability Quality  A Most Stable   B Excellent   C Good	Sketch of Disk
A Most Stable B Excellent C Good D Poor	
Monument is Disk is set	
Recessed (5 cm in bedrock in concrete	
Projecting cm In structure	
General Station Location (describe the general location include airline distances to three towns or mapped features): The	\
station is located	
21.19 MI S OF NEWFORT NEWS, VA	/
DAMIE OF SUFFOLK ALONG THE	
BEABOARD COASTLINE RR. SET AT A GRAVEL ROAD CROSSING THAT RUNS	
BETWEEN SUFFOLK MARINE AND A GARMENT	
FACTORY.	

	Station Designation: এদেওর					) <del>( )</del>		
Land Ownership:		Public			< P	rivate	RR-RW	
Land Owner Name		d Owner (		Information (o	ption	al)		
Land Owner Name Street Address	<i>(:</i> 0	K ALLCO A	> F.vo					
City				State:	Zip	Code:		
Telephone Number	(	)	-	Fax:	(	)	-	
Email	1			1* 1	1 1:			1
To Reach Narrative (	aescrii	be using i	ed by le	g distances ar	na aire	ections t	rom major road	ג

To Reach Narrative (describe using leg by leg distances and directions from major road intersection to the mark): To reach the station from the intersection of MAIN STREET (US 460/VA-10/VA-32) AND EAST CONSTANCE BLND (US 460/VS 588378) GO EAST O. 9 MI TO OLD PINNER ST. GO SOUTH 132FT TO A GRAVEL LOT ON LEFT. GO 112ft EAST TO A GRAVEL LOT ON LEFT. GO 112ft EAST TO A GRAVEL ROAD. GO 180 FT S ON GRAVEL RO. STATION IS GRAVEL ROAD.

Monument Description and Measurements (provide at least three (3) measurements to permanent, identifiable nearby objects and a description of the monument size, shape, height etc.): The station is 56.0 FT NE OF RR CROSSING OF GRIVEL RD 59.6 FT ENE OF WOOLL RR CROSSING SIGN POST : 29 FT NOT ERR AND NOOLT 2FT LOWER THAN THE RR; ZFFT N OF NOOTH RAIL OF RR, 2.0 FT SE OF TELEPHANE POLE NO. 30 TB WITH A NGS A GROV WIRC; IFT DAST OF A METAL WITNESS POST WITH A NGS SIGN IET ABOUT O.SFT PELOW MEAN GROUND LEVEL.

## Station Visibility Obstruction Diagram Station Designation: G468 1978 Check if no obstructions above 10° Using the plan and profile views below, identify potential obstructions to satellite visibility at the station. In the plan view use a horizontal line to indicate the azimuth. Place the center of the line at the elevation angle of the obstruction above the horizon. In the profile view use a vertical line to indicate the distance the obstructions is from the station. Extend the line up to the appropriate elevation angle. Identify each obstruction using a unique number. Trais POLL 330° 30° 20° 40° 300° 60 270°-7Ò° 50° 240° 120° The 210° 150° 70° Elevation Angle 50° 109 30° 10° 100 (30) 360 (110)

Feet (Meters) from Station

County: Agency or Company: Reconnaissance By: GNOTTAGE
Height above mark (meters):
(757) 441 - 5460

m

Agency or Company Telephone Number:

Page 3 of 3

Note Tres Block See statch

	Federal Aviation Administration
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## Survey Station Description and Recovery

					Form
Station Designation	4 Char Identifier	r	State		County
G 468	6468		VA		
Permanent Record Identifier (fro			ation		Country
J=x 2233		Feet 54	Mete 7.48		. •
N 多 . Latitude	. 16 "	w	46 •	Longitu 33	
Original Description (Comprehension Preliminary (mark has not a newly set mark and the A recovered mark and the Established by: 100	check one) nature; expected to sition and bject to ground	Fu Fu Pa Estab	all description all description artial description blished by: of Party (in  Recovery  Recovere  Not recovery  Poor, dis	on of a stati on of a stati iption of a st nitials) /	t found nutilated
	Setting Information				
Marker Type Rod Disk Other:  Rod Depth ft. m Sleeve Depth m	Setting Type Bedrock Concrete Other: Stamping: Agency Inscription Monument is:	);	gency Inscr NGS CGS Other:		I

# FX2233 CORRECTIONS to NGS PATA SH

Special Type (Check all applicable)	Transportation (Check one)		
F Fault monitoring site	☑ C Car		
T Tidal station	P Light Truck, (pickup, carry-all etc.)		
Control Station (FBN/CBN/Benchmark)	X Four wheel drive vehicle required		
Airport Control Station (PACS/SACS)	Other:		
Yes No Mark suitable for GPS use?			
lar e samer esta esta esta esta esta esta esta esta	on include airline distances to three towns or mapped		
features): The station is located	LONG THE SEABOARD COAST		
AROUN DIG MILE LAST ME	CTATION IN SUFFICIE VA.		
LINE RR FROM THE KK	STATION IN SUFFOLK, VA.		
SET AT A GRAVEL ROAD	CROSSING THAT KING		
BETWEEN SUFFOLK MA	RINE ANDA GARMET		
FACTORY			
,			
To Donah Namatiya (danasiha yaina las hulas distan	and disastions from major road interposition to the		
and the second of the second o	ces and directions from major road intersection to the		
Thank). To reach the station from the intersection of	8/SR 460 + EAST PINNER ST		
FROM THE JCT, OF USS	50 00 000 to 000		
IN SUFFOLK UA PROCE	ED 0:2 M/ SW /6 000		
PINNER ST; TURN LEFT ON OLD PINNER ST AND			
GO 0.3 MILES AND TURN RIGHT INTO PARKING			
LOT AND ENTER GRAVEL ROAD WHICH LEADS to			
	- KOMD WHEH LENDS TO		
RAILROAD CROSSING.			
Monument Description and Measurements (provide a	at least three (3) measurements to nermanent		
identifiable nearby objects and a description of the m			
THE MARK IS 56.0 FT	NE OF RK CROSSING- OF		
GRAVEL ROAD, ; 59.6 FT ENE OF WOODEN RKXING			
SIGN POST; 29 FT N OF & RR AND ABOUT 2 FT			
LOWER THAN; 27 FT NOF NOVTH RAIL OF RK,			
2.0 FT SE OF TELEPHONE POLE NO. 3048 WITH			
a Guy WIVE! IFT EAST OF A METAL WITNESS POST			
WITH A CAGE SICH			
SET ABOUT O.SFT BELOW MEAN GROUND LEVEL			

Page 2 of 2 MAY BE COVERED Slishtly, Note; Someone dus a deep hole ABOHT 2 FT SWOF MAKK,

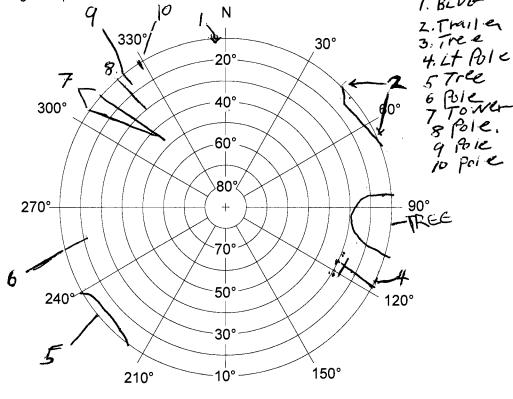
SUPPLIED TO STRAIGHT	Federal Aviation Administration
Airport Name	or Location Name: الم

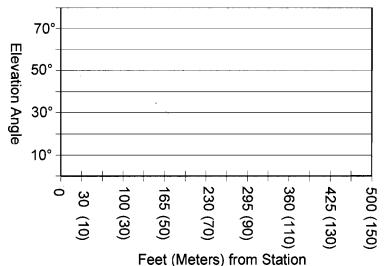
# Station Location Sketch and Visibility Diagram

			Diagrain
Airport Name or Location Nam	IE: NGS FIELD OPERAT	ions NORFOLK, VA	
Station Designation	Permanent Identifier (PID)	Airport Location Identifier	Date
WEATHER I	X69668	D2	12/15/08
PACS SACS		BM FBN	CBN
Other (specify):		Organization: NGS	
Station Location Sketch	*	1 , 10	AN BLE TON AUG
_			will !
			1/23/
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	JOODIS AVE		1 2
Ethe OTT	TOTAL AVE		1 16
POLE A TRA	NICERS		/ /
WEATHER C	DIT POLL		\
/ L	ZI TOCE		( )
/ 4/	\ '*		
/ ½ /	ALL ALL		V
/ 5/	-		
/ 4 /	F 7		
ZWD STREET	F 7 ,	INTIONAL GEOXETIC	
<b>f</b> /	FJM	FIELD OPERATIONS	
/	/ / BLD		
	Monument Inforn		Lau N. E. H. Stein
Monument Stability  A Most Stable B Exce		Sketch of Disk	
A Most Stable B Exce	ment 🔼 C Good		
Monument is	Disk is set		
	n bedrock n concrete		
	n structure		
General Station Location (describe the	general location include	/	\
airline distances to three towns or map station is located	oped features): The		
IN NORFOLK, VA	1,5 M   WEST	\	1
THE INTERSECTION O	FURGINIA		/
BEACH BLUD AND TI	DEWATER DR		
	the state of the s		

		Station Design	nation: WENTHER
Land Ownership:	Public		Private
Land Owner Name Confession Street Address 53% City Norselle Telephone Number (7 Email	FRONT STREET	COMMERCE T State: WA	Zip Code: 235 (ン
intersection to the mark)			d directions from major road
			three (3) measurements to
permanent, identifiable neight etc.): The station	- •	a description of	the monument size, shape,
රි	OF DATASHECT	-	

Using the plan and profile views below, identify potential obstructions to satellite visibility at the station. In the plan view use a horizontal line to indicate the azimuth. Place the center of the line at the elevation angle of the obstruction above the horizon. In the profile view use a vertical line to indicate the distance the obstructions is from the station. Extend the line up to the appropriate elevation angle. Identify each obstruction using a unique number.





County:

Agency or Company: NGS

Agency or Company Telephone Number:

Reconnaissance By: K. John

Height above mark (meters):

2.0 m

(757 )441

- 5460