ORIGINAL
(RETURN)

FORM APPROVED FOR USE THROUGH 7/31/96 BY OMB NO.3147-0001.

NATIONAL TRANSPORTATION SAFETY BOARD
PILOT/OPERATOR AIRCRAFT ACCIDENT REPORT
This form To Be Used For Reporting Civil Aircraft Accidents Involving Commercial and General Aviation Aircraft

Location

Nearest City/Place, State, Zip Code	Date of Accident	Local Time (24 HOUR CLOCK)	Zone	Elevation At Accident Site
EVERETT, WASHINGTON	9 FEB 2003	~ 1545	PST	565 Feet MSL _____ Feet MSL

If The Accident Occurred On Approach, Takeoff or Within 3 Miles of An Airport, Complete The Following Information

Proximity To Airport

1.☒ On Approach 3.☐ Within 1/2 Mile 5.☐ Within 1 Mile 7.☐ Within 3 Miles
2.☐ Within 1/4 Mile 4.☐ Within 3/4 Mile 6.☐ Within 2 Miles 8.☐ Beyond 3 Miles

Airport Name	Airport Ident	Runway/Landing Surface Conditions:
EVERETT / SNOHOMISH CTY	KPAE	1.☐ Direction: 160° 3.☐ Width: 150' 5.☐ Condition: WET 2.☐ Length: 9010' 4.☐ Surface: ASPHALT

Phase Of Operation:

1.☐ Standing 3.☐ Takeoff 5.☐ Cruise 7.☐ Approach 9.☐ Hover/Maneuver
2.☐ Taxi 4.☐ Climb 6.☐ Descent 8.☒ Landing 10.☐ Altitude Of In-Flight Occurrence _____ Feet MSL

Aircraft Information

Registration Mark	Aircraft Manufacturer	Aircraft Type/Model	Serial Number	Cert Max Gross WT

Type Of Aircraft

1.☐ Airplane 5.☐ Blimp/Dirigible
2.☐ Helicopter 6.☐ Ultralight
3.☐ Glider 7.☐ Gyroplane
4.☐ Balloon 8.☐ Specify _____

Type Of Airworthiness Certificate

1.☐ Normal 5.☐ Restricted
2.☐ Utility 6.☐ Limited
3.☐ Acrobatic 7.☐ Experimental
4.☐ Transport 8.☐ Specify _____

Amateur Built

1.☐ Yes
2.☐ No

Landing Gear

1.☐ Tricycle—Fixed 4.☐ Tailwheel—Retractable 7.☐ Skid
2.☐ Tricycle—Retractable 5.☐ Tailwheel—Retractable Mains 8.☐ Limited
3.☐ Tailwheel—Fixed 6.☐ Amphibian 9.☐ Specify _____

No. Of Seats
Flight/Cabin Crew _____
Pax _____

Stall Warning System Installed	IFR Equipped	Engine Type
1.☐ Yes 2.☐ No	1.☐ Yes 2.☐ No	1.☐ Reciprocating—Carburetor 3.☐ Turbo Prop 5.☐ Turbo Fan 2.☐ Reciprocating—Fuel Injected 4.☐ Turbo Jet 6.☐ Turbo Shaft

Engine Manufacturer	Engine Model/Series	Engine Rated Power	Type Of Fire Extinguishing System Used
		1._____ Horsepower 2._____ Lbs Thrust	1. None 2.Specify _____

Engine(s)	Date of Mfg.	Mfg. Serial No.	Total Time	Time Since Inspection	Time Since Overhaul
Engine No. 1			Hours	Hours	Hours
Engine No. 2			Hours	Hours	Hours
Engine No. 3			Hours	Hours	Hours
Engine No. 4			Hours	Hours	Hours

Type Of Maintenance Program

1.☐ Annual
2.☐ Manufacturer's Inspection Program
3.☐ Other Approved Inspection Program(AAIP)
4.☐ Continuous Airworthiness
5.☐ Specify _____

Type Of Last Inspection

1.☐ Annual
2.☐ 100 Hours
3.☐ AAIP
4.☐ Continuous Airworthiness

Date Last Inspection Performed
_____ (M/D/Y)
Time Since Last Inspection
_____ Hours
Airframe Total Time
_____ Hours

Emergency Locator Transmitter (ELT)	ELT Manufacturer	Model/Series	Serial Number	Battery Date (M/D/Y)

Switch	Operated	Aided In Accident Location
1.☐ On 2.☐ Off 3.☐ Armed	1.☐ Yes 2.☐ No	1.☐ Yes 2.☐ No

Registered Aircraft Owner

Address _____

Operator Of Aircraft

1.☐ Same As Registered Owner
2. Name
3. DBS:

Address

1.☐ Same As Registered Owner
2._____

NTSB Form 6120.1/2 (11/87) This Form replaces NTSB Forms6120.1 (rev. 10/77) and 6120.2 (Rev.10/77)

Owner / Operator Information (cont.)

Operator (Certificate Number)	Operator Designator (4 Letter Designator)

Purpose Of Flight And Type Of Operation

Regulation Flight Conductor Under

1.☐ FAR91 (only) 4.☐ FAR 121 7.☐ FAR 133
2.☐ FAR91D 5.☐ FAR 125 8.☐ FAR 135
3.☐ FAR 103 6.☐ FAR 129 9.☐ FAR 137

Purpose of Flight

1.☐ Personal 6.☐ Aerial Observation
2.☐ Business 7.☐ Other Work Use
3.☐ Educational 8.☐ Public Use
4.☐ Executive/Corporate 9.☐ Ferry
5.☐ Aerial Application 10.☐ Positioning

Operator Authority

FAR121
1.☐ Domestic
2.☐ Flag
3.☐ Supplemental

FAR 135
4.☐ On Demand
5.☐ Commuter

FAR 133
6.☐ Rotorcraft External Load

FAR125
7.☐ Large Aircraft

FAR 129
8.☐ Foreign

FAR 121, 125, 127, 129, 135 Revenue Operations

1.☐ Scheduled
2.☐ Non Scheduled
3.☐ Domestic
4.☐ International
5.☐ Passenger
6.☐ Cargo
7. Specify_____

Pilot Information

Pilot Name	Pilot Certificate No.	Address	Nationality

Certificate (s)

1.☐ Student 3.☐ Commercial 5.☐ Flight Instructor 7.☐ Military 9.☐ None
2.☐ Private 4.☐ Airline Transport 6.☐ Flight Engineer 8.☐ Foreign 10.Specify_____

Rating (s)

1.☐ None 6.☐ Helicopter
2.☐ Single Engine Land 7.☐ Glider
3.☐ Single Engine Sea 8.☐ Free Balloon
4.☐ Multiengine Land 9.☐ Airship
5.☐ Multiengine Sea 10.☐ Gyroplane

Instrument Rating (s)

1.☐ None
2.☐ Airplane
3.☐ Helicopter

Instructor Rating (s)

1.☐ None 6.☐ Instrument Airplane
2.☐ Airplane S.E. 7.☐ Instrument Helicopter
3.☐ Airplane M.E. 8.☐ Ground Instructor
4.☐ Helicopter 9.☐ Specify_____
5.☐ Glider

Type Ratings/Student Endorsements	Date Of Biennial Flight Review or Equivalent (M/D/Y)	BFR Aircraft
		1. Make_____ 2. Model_____

Medical Certificate	Date Of Last Medical (M/D/Y)	Limitations / Waivers	Date Of Birth (M/D/Y)
1.☐ None 3.☐ Class 2 2.☐ Class 1 4.☐ Class 3			

Degree Of Injury

1.☐ None
2.☐ Minor
3.☐ Serious
4.☐ Fatal

Seat Occupied

1.☐ Left 4.☐ Front
2.☐ Right 5.☐ Rear
3.☐ Center

Person At Controls At Time Of Accident

1.☐ Pilot In Control 4.☐ Non-Pilot
2.☐ Second Pilot 5.☐ No One
3.☐ Both Pilots

Seat Belt Available

1.☐ Yes
2.☐ No

Seat Belt Used

1.☐ Yes
2.☐ No

Shoulder Harness Available

1.☐ Yes
2.☐ No

Shoulder Harness Used

1.☐ Yes
2.☐ No

Source Of Pilot Flight Time Information

1.☐ Pilot Logbook 4.☐ Company
2.☐ Operators Estimate 5.☐ Specify_____
3.☐ FAA Records

Flight Time	All A/C	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument: Actual	Instrument: Simulated	Rotorcraft	Glider	Lighter Than Air
Total Time										
Pilot In Command (PIC)										
Instructor										
This Make & Model										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

Second Pilot Information

Second Pilot Responsibilities At The Time Of Accident INSTRUCTOR

1.☐ Co-Pilot 2.☐ Dual Student 3.☐ Safety Pilot 4.☒ Check Pilot 5.☐ None (Pilot-Rated Passenger)

Pilot Name	Pilot Certificate No.	Address	Nationality
DAVID L CURTIS	/	BOTHELL WA 98011	USA

Certificate (s)

1.☐ Student 3.☒ Commercial 5.☒ Flight Instructor 7.☐ Military 9.None_____
2.☐ Private 4.☐ Airline Transport 6.☐ Flight Engineer 8.☐ Foreign 10.Specify_____

Second Pilot Information (cont.)

Rating (s)	Instrument Rating (s)	Instructor Rating (s)
1.☐ None 2.☒ Single Engine Land 3.☐ Single Engine Sea 4.☒ Multiengine Land 5.☐ Multiengine Sea 6.☐ Helicopter 7.☐ Glider 8.☐ Free Balloon 9.☐ Airship 10.☐ Gyroplane	1.☐ None 2.☒ Airplane 3.☐ Helicopter	1.☐ None 2.☒ Airplane S.E. 3.☐ Airplane M.E. 4.☐ Helicopter 5.☐ Glider 6.☒ Instrument Airplane 7.☐ Instrument Helicopter 8.☐ Ground Instructor 9.☐ Specify

Type Ratings/Student Endorsements	Date Of Biennial Flight Review or Equivalent (M/D/Y)	BFR Aircraft
NONE	06/02/2001	1. Make CESSNA 2. Model TR182

Medical Certificate	Date Of Last Medical (M/D/Y)	Limitations / Waivers	Date Of Birth (M/D/Y)
1.☐ None 3.☐ Class 2 2.☐ Class 1 4.☒ Class 3	05/29/2001	CORRECTING GLASSES REQUIRED	

Degree Of Injury	Seat Occupied	Seat Belt Available
1.☒ None 3.☐ Serious 2.☐ Minor 4.☐ Fatal	1.☐ Left 3.☐ Center 5.☐ Rear 2.☒ Right 4.☐ Front	1.☒ Yes 2.☐ No

Seat Belt Used	Shoulder Harness Available	Shoulder Harness Used	
1.☒ Yes 2.☐ No	1.☒ Yes 2.☐ No	1.☒ Yes 2.☐ No	1.☒ Pilot Logbook 4.☐ Company 2.☐ Operators Estimate 5.☐ Specify 3.☐ FAA Records

Flight Time	All A/C	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument Actual	Instrument Simulated	Rotorcraft	Glider	Lighter Than Air
Total Time	2109	286	1960	148	188	105	137			
Pilot In Command (PIC)	2054	285	1923	131	185	103	52	/	/	/
Instructor	1465	147	1465	0	83	45	400			
This Make & Model					18	9	43			
Last 90 Days	8.6	8.6	8.6	0	0	.7	0			
Last 30 Days	8.6	8.6	8.6	0	0	.7	0	/	/	/
Last 24 Hours	1.2	1.2	1.2	0	0	.7	0			

Other Personnel

Name	Seat	Address (City & State)	Crew	Non-Revenue	Revenue	Non-Occupant	FAA	Fatal	Serious	Minor	None
1.											
2.											
3.											
4.											
5.											
6.											

Flight Itinerary Information

Last Departure Point	Time Of Departure	Destination	Flight Plan Filed
1. Airport ID 2. City/Place 3. State	1. Time 2. Time Zone	1. Airport ID 2. City/Place 3. State	1.☐ None 4.☐ VFR/IFR 2.☐ VFR 5.☐ Company (VFR) 3.☐ IFR 6.☐ Military (VFR)

If Weather Was Involved, State If Weather Briefing Was Obtained or If Weather Reports Were Checked And How It Was Accomplished

Fuel On Board At Last Takeoff	Fuel Type		
Gallons or Pounds	1.☐ 80/87 2.☐ 100 Low Lead 3.☐ 100/130	4.☐ 115/145 5.☐ Jet A 6.☐ Automotive	7.Specify

Other Services, If Any, Prior to Departure

Weather Information At The Accident Site

Source Of Weather Information (Pilot/Operator, Weather Observation)	Light Condition	Visibility	Temp (°F)
PILOT ESTIMATES	1.☐ Dawn 3.☐ Dusk 5.☐ Dark Night 2.☒ Daylight 4.☐ Bright Night	NA Miles	NA

Weather Information At The Accident Site (cont.)

Dew Point	Altimeter Setting	Sky/Lowest Cloud Condition
NA (°F)	NA "Hg	1.☐ Clear 2.☐ Scattered_____Feet AGL 3.☐ Broken_____Feet AGL 4.☒ Overcast 400 Feet AGL 5.☐ Partial Obscuration 6.☐ Obscured

Wind Information	Restriction To Visibility	Type Precipitation	Intensity Of Precipitation
1.Direction NA 2. Velocity_____Kts 3. Gusts _____Kts	MIST	RAIN/MIST	1.☒ Light 3.☐ Heavy 2.☐ Moderate 4.Specify_____

Turbulence (Multiple Entry)
1.☒ None 2.☒ Light 3.☐ Moderate 4.☐ Severe 5.☐ Extreme 6.☐ Clean Air 7.☒ In Clouds

Damage To Aircraft And Other Property

Degree Of Aircraft Damage	Fire
1.☐ None 2.☐ Minor 3.☐ Substantial 4.☐ Destroyed	1.☐ Yes 3.☐ In-Flight 2.☐ No 4.☐ On Ground

Description Of Damage To Aircraft And Other Property

Mechanical Malfunction Failure

1.☐ No
2.☐ Yes List The Name Of The Part, Manufacturer, Part No., Serial No. And Describe The Failure

Total Time	
On Part	At Overhaul
_____Hours	_____Hours

Collision Accident

If Collision Accident Occurred, Complete The Information For Other Aircraft

Registration Mark	Aircraft Manufacturer	Aircraft Type/Model	Degree Of Aircraft Damage
			1.☐ Destroyed 3.☐ Minor 2.☐ Substantial 4.☐ None

Registered Aircraft Owner	Address

Pilot Name	Address	Pilot Certificate No.

Evacuation Of Aircraft

Assistance Received

1.☐ Outside Person (s) 3.☐ Slide 5.☐ Ladder
2.☐ Auxiliary Lighting 4.☐ Rope 6.☐ Specify _____

Method Of Exit (State Approximate Number Of Persons Using Each Of The Following

1. Main Door _____ 2. Auxiliary Door _____ 3. Emergency Exit _____

Recommendation (How Could This Accident Have Been Prevented)

Operator/Owner Safety Recommendation (Optional Entry)

Narrative History Of Flight

Describe What Occurred In Chronological Order, The Circumstances Leading To The Accident And The Nature Of The Accident. Describe The Terrain and Include a Sketch Of Wreckage Distribution If Pertinent. Attach Extra Sheets If Needed. State Point Of Departure, Time Of Departure, Intended Destination And Services Obtained.

SEE ATTACHED

I Hereby Certify That The Above Information Is Complete And Accurate To The Best Of My Knowledge

Date Of This Report	Signature Of Pilot/Operator
6 MAR 2003	David R. Curtis

Signature Of Person Filing Report Other Than Pilot/Operator

1. Signature _____
2. Type Or Print Name _____
3. Title _____

For NTSB Use Only

NTSB Accident No.	Reviewed By NTSB Office Located At	Name Of Investigator	Date Report Received
SEA03LA037	Seattle, Washington	Steven A. McCreary	MAR 11 2003

NARRATIVE SUMMARY
Cessna 172-N912LB
9 February 2003

Pilot/student: Paul A. Maritz, cert ? . ASEL
Pilot/instructor: David L. Curtis, cert ? CFI-AI

A weather briefing was obtained with no mention of icing. An IFR flight plan was filed with the Seattle AFSS listing Boeing Field/King County International Airport (KBFI) as the departure point and the Paine VOR (PAE) as the destination with notation of instrument training/multiple approaches. Mr. Maritz received a briefing update which included a PIREP of cloud tops at 2100' at Paine Field, but nothing about icing or possible icing along our route of flight. We received our clearance and departed at approximately 1447 local time.

Our first approach was the VOR-B full approach at Snohomish County Airport (KPAE) with a planned missed approach procedure after the approach. Mr. Maritz flew an acceptable approach to the MDA and we executed the missed approach. I then realized our climb rate was at a slower rate than I expected and I pointed this out to Mr. Maritz. We both then noted that the airplane was beginning to pick up ice. Because of this un-forecast icing I immediately made the decision to terminate the flight. We were in IMC so we had to fly an approach. I requested from ATC an abbreviated approach with radar vectors to final ILS 16-R approach and a full stop landing and ATC acknowledged.

I briefed Mr. Maritz on the procedures to use for final approach and landing with the accumulation of ice (higher speeds than normal at all times, no flaps, and fly the airplane onto the runway/no flare). Mr. Maritz indicated that it was taking full power to maintain altitude. We began losing altitude just as we intercepted the glide slope so I told him to continue to use full power as needed.

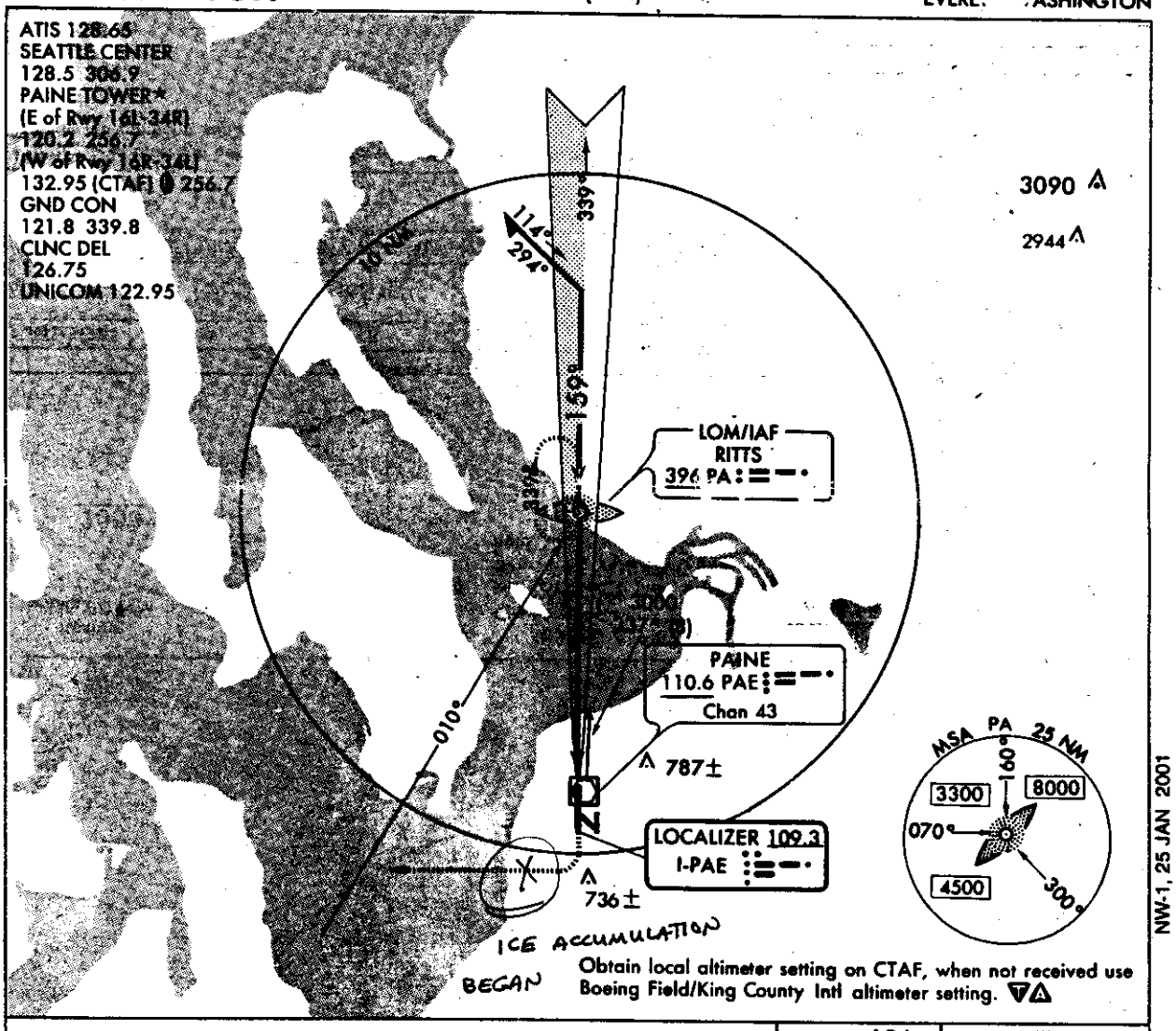
I believe we broke out of the clouds at about 400' AGL and on the localizer. After crossing the threshold at approximately 10-15' AGL I felt a shudder in the airframe and then the left wing stalled starting an immediate left rotation both roll and yaw. I assumed control of the aircraft and attempted to stop the spin entry. I was able to stop the rotation and attain an approximately level attitude but I could not stop the left drift. Mr. Maritz attempted to apply full power at this time but I immediately closed the throttle.

We departed the runway to the left traveling through the grass on all three wheels. The grass was very soft and after traveling perhaps 50 meters in the grass the airplane tires dug in. The airplane tipped forward, the propeller impacted the earth and the engine stopped. We continued on over coming to rest with the airplane on the upper wing surfaces and the vertical stabilizer/rudder. After determining that Mr. Maritz was not injured, I instructed him to turn off the Magnetos, the Master switch, and pull the Fuel Shutoff handle. He exited the aircraft through the left window and I then exited through the right side door.

Shortly thereafter, another aircraft in the vicinity encountered un-forecast icing, declared an emergency and landed at KPAE. Approximately 30 minutes after the accident I picked up a piece of the ice from the leading edge that was in the grass. It was still over ½" thick and had a very rough surface.

ILS R..Y 16R

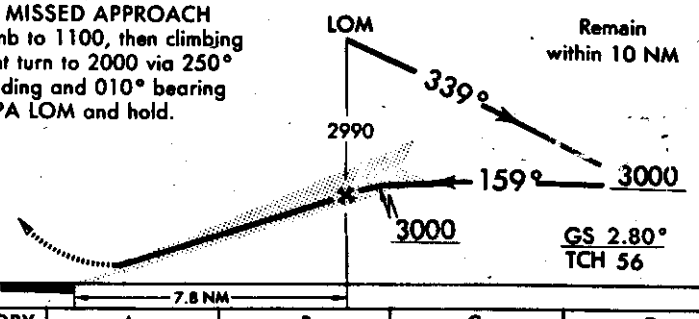
EVERETT/SN(WISH COUNTY (PAIN LD)(PAE)
AL-142 (FAA) EVERE. ASHINGTON



NW-1, 25 JAN 2001

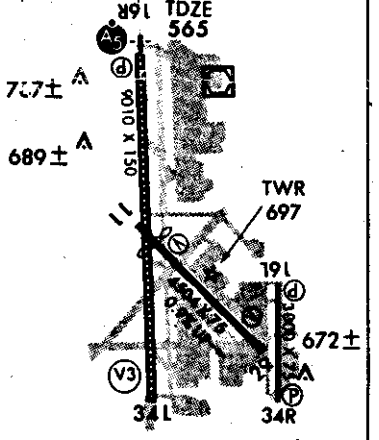
NW-1, 25 JAN 2001

MISSED APPROACH
Climb to 1100, then climbing right turn to 2000 via 250° heading and 010° bearing to PA LOM and hold.



ELEV 606 | Rwy 11 ldg 3705'

159° 7.8 NM from FAF



REIL Rwys 16L and 34R
MIRL Rwys 11-29 and 16L-34R
HIRL Rwy 16R-34L

CATEGORY	A	B	C	D
S-ILS 16R	765/24 200 (200-½)			
S-LOC 16R	980/24 415 (400-½)		980/40 415 (400-¾)	
CIRCLING	1060-1 454 (500-1)	1060-1 454 (500-1)	1060-1½ 454 (500-1½)	1160-2 554 (600-2)
BOEING FIELD/KING COUNTY INTL ALTIMETER SETTING MINIMUMS				
S-ILS 16R	900-½ 335 (300-½)			900-¾ 335 (300-¾)
S-LOC 16R	1100-½ 535 (500-½)		1100-1 535 (500-1)	1100-1¼ 535 (500-1¼)
CIRCLING	1200-1 594 (600-1)		1200-1½ 594 (600-1½)	1260-2 654 (700-2)

FAF to MAP 7.8 NM					
Knots	60	90	120	150	180
Min:Sec	7:48	5:12	3:54	3:07	2:36