

For managers of flight service stations who need a reliable method of generating VOLMET broadcasts that pilots can easily understand

StarCaster D-VOLMET is designed for managers of flight service stations who need a reliable method of generating VOLMET broadcasts that pilots can easily understand. StarCaster automatically generates VOLMET (en-route ATIS) broadcasts of aviation weather information using a natural voice.

StarCaster D-VOLMET obtains weather information automatically in textual format from various data sources and converts it into a high-quality voice output. This output can then be provided to aircraft in flight via HF or VHF radio through continuous or regularly-scheduled broadcasts. Simultaneously, StarCaster D-VOLMET can transmit a textual copy of the message directly to ACARS-equipped aircraft via datalink.

Features

- Web-based Human Machine Interface (HMI) provides easy access from any workstation for both operational and maintenance personnel.
- Automatically receives/processing weather information from various sources such as: AFTN/AMHS, AIM/AIS, NWS/NOAA, SWIM, manual entry, etc.
- Organizes weather information from various domestic and international aerodromes for continuous or scheduled broadcast cycles.
- Exclusive Text-to-Speech (TTS) technology generates the most natural sounding voice with unrivalled clarity.
- Produces VOLMET broadcasts in English, French, Portuguese and Spanish with other languages available upon request.
- Supports VOLMET voice broadcasts over HF/VHF radio using Analog outputs and/or ED-137 compliant VoIP
- Simultaneously transmits the D-VOLMET message to ACARS-equipped aircraft through a datalink service provider (ARINC/SITA).
- Automatically logs received data, broadcast content (textual & audio) and user actions.
- Highly reliable and supported by a fully-redundant configuration.
- SNMP ready/capable.

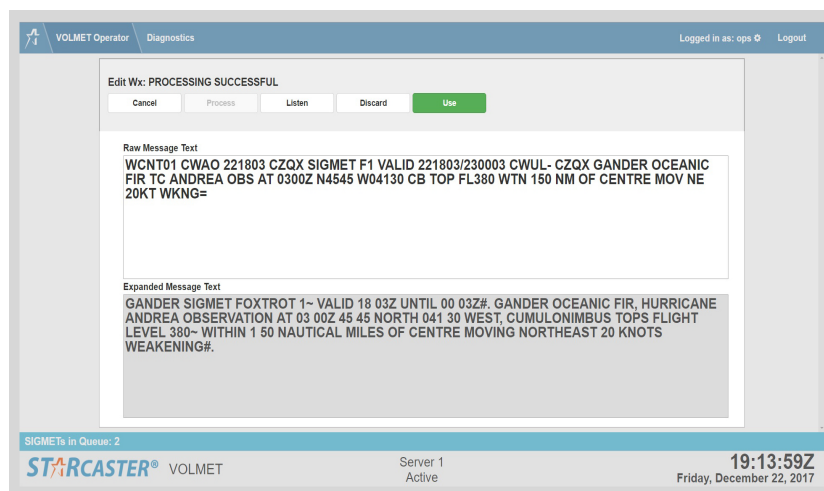


Ease of Operation

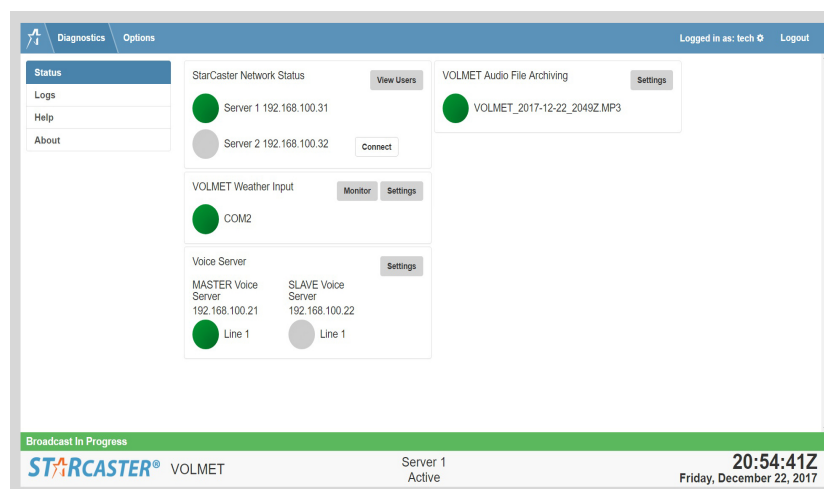
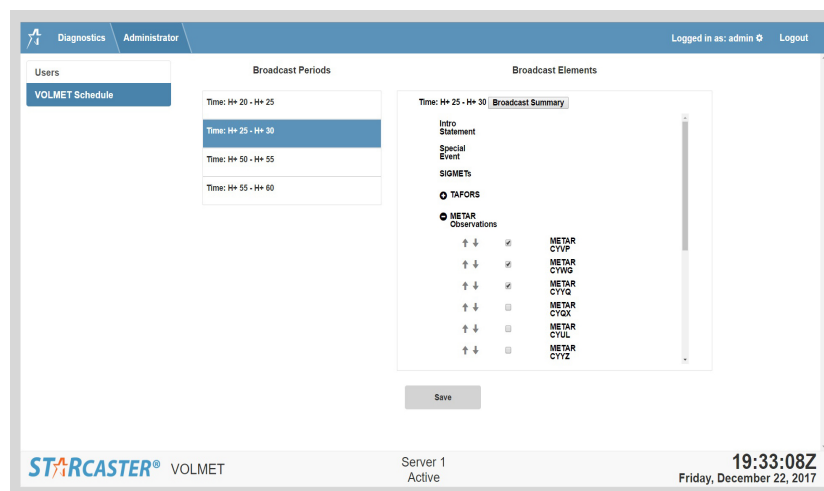
- Allows users to quickly and easily view the current VOLMET broadcast(s).
- Automatically processes new weather data (METAR/SPECI, TAF & SIGMET) received from the weather data source.
- Supports the processing of weather bulletins with WMO headers containing multiple weather data items.
- Conducts semantic and syntactic validation of all weather data and provides the tools for manual entry/correction.
- Automatically assembles the correct weather data items into VOLMET messages in accordance with the broadcast content and schedule.
- Converts the textual message into a clear and natural-sounding voice message which can be broadcast via HF/VHF transmitters or listened to via the telephone.
- Allows for the manual recording of a portion or the whole of the VOLMET broadcast.
- Transmits a textual copy (D-VOLMET) of the broadcast to ACARS-equipped aircraft via a datalink network service provider (ARINC/SITA).
- Generates visual and audible alarms for system events such as the receipt of SIGMETs or invalid weather data.

System Administration

- Can be configured to send independent VOLMET broadcasts to one or more transmitters.
- Broadcasts can be continuous or follow a schedule configured through the customizable VOLMET Scheduler.
- Access control allows administrators to customize user rights and privileges.
- Centralizes critical diagnostic data and provides real-time status of system components and external interfaces through the user interface or via SNMP.
- Allows for inline monitoring of the weather data feed and audio/datalink outputs.
- Provides administrative access to fully manage system configuration through the user interface.
- Includes extensive logging of system transactions, user actions, events, errors, alarms, and VOLMET broadcasts (audio and text) to support maintenance personnel and statistical reporting.



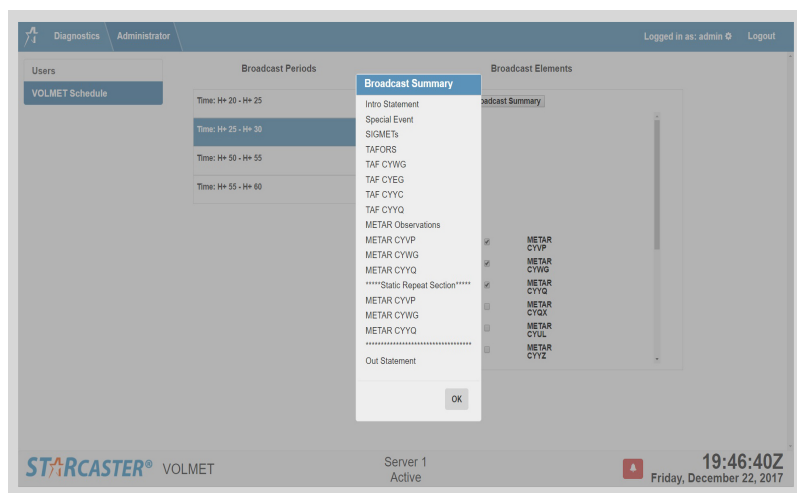
STARCASTER® is a **Natural Voice Text-to-Speech** system that provides flight service stations with an automated way to easily create clear and consistent broadcasts.



Superior Voice Quality

- StarCaster employs exclusive and patented Text-to-Speech technology that produces the most clear and consistent natural sounding voice available on the market.
- StarCaster utilizes a rules-based structure to ensure the correct selection of speech items from a carefully constructed and extensive database of aviation technology, developed specifically by STR-SpeechTech's team of linguists and acoustics experts.
- StarCaster D-VOLMET is available as a dual-language system, with graphical interfaces and full audio provided in English paired with Spanish, French or Portuguese.

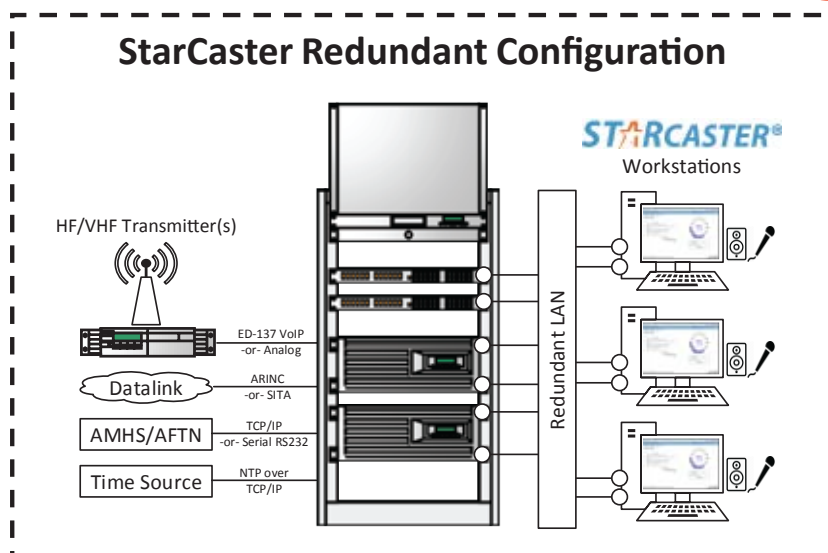
Flexible Deployment Options



- StarCaster can combine weather data into one or more D-VOLMET messages that can optionally be sent to multiple transmitters.
- Broadcasts can be configured to run continuously or over scheduled time periods.
- The broadcast content and structure are easily customized.
- Voice broadcasts are automatically generated in English with options for Spanish, French and Portuguese. Additional languages are available upon request.
- Voice broadcasts can be transmitted via HF/VHF radios or accessed by telephone.
- StarCaster allows D-VOLMET operations to be centralized with remote transmission of the broadcasts.
- Web-based user interface allows flexible system access to any workstation via login credentials.
- StarCaster can deliver the D-VOLMET message (datalink) to ACARS-equipped aircraft simply with a secure public internet connection.

STARCASTER® can be configured to provide both **D-VOLMET** and **D-ATIS** broadcasting for an entire country from a single centralized system.

Deployment Architecture



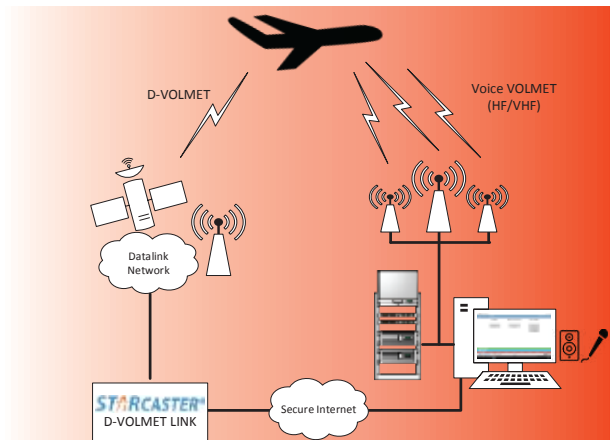
- StarCaster can be deployed in various hardware configurations to fit specific customer needs.
- The dual hot-standby server configuration with automatic switchover mechanism achieves an availability rating in excess of 99.999%.
- Automatic switchover results in no loss of data or interruption to the VOLMET broadcast(s).
- StarCaster has proven interoperability with a wide-array of manufacturers of the following systems:
 - AFTN & AMHS
 - SWIM
 - VHF/HF transmitters (analog or ED137-compliant VoIP)
 - Datalink networks (SITA or ARINC)
 - GPS time source (NTP)

Datalink Connectivity

StarCaster D-VOLMET provides the ability to transmit the text of VOLMET messages to ACARS-equipped aircraft via Datalink. This D-VOLMET Interface has been field tested and proven compatible with both ARINC and SITA datalink networks. As airline demand for D-VOLMET increases, StarCaster presents unique options for implementing D-VOLMET in ways not previously thought possible.

StarCaster D-VOLMET LINK™

The StarCaster D-VOLMET LINK™ is an exclusive datalink subscription service available only to StarCaster customers. This service enables StarCaster to transmit D-VOLMET messages securely over the public internet via ARINC's network to ACARS-equipped aircraft. All that is required is an internet connection; No contract with a 3rd party datalink service provider (ARINC or SITA) is necessary. StarCaster D-VOLMET LINK™ is a simple and cost effective solution for implementing D-VOLMET at any flight service station.



StarCaster Datalink Response Monitor

The Datalink Response Monitor is an optional software application which can be deployed in conjunction with the StarCaster D-VOLMET LINK. It receives hourly reports from the ARINC Datalink server containing all requests for D-VOLMET messages made by aircraft, along with:

- the aircraft identifier (tail number)
- the name of the airline
- the time of the request
- an indication that the D-VOLMET message was successfully delivered to the aircraft
- or an indication of a failure to deliver the D-VOLMET message in response to a request

Response Type	Direction	Message Type	Airport ID	Airline ID	Aircraft ID	ATIS ID	Process Time
Response	Arrival	ATIS	BIKF	RU	VQ-BRH	P	2014-05-09 17:40:48Z
Response	Arrival	ATIS	BIKF	LH	O	O	2014-05-09 17:04:26Z
Response	Arrival	ATIS	BIKF	EI	EI-DAA	O	2014-05-09 16:56:25Z
Response	Arrival	ATIS	BIKF	EI	EI-LAX	M	2014-05-09 16:01:15Z
Response	Arrival	ATIS	BIKF	LH	K	K	2014-05-09 15:31:48Z
Response	Arrival	ATIS	BIKF	US	N283AY	K	2014-05-09 15:08:56Z
Response	Arrival	ATIS	BIKF	RV	C-FMWY	I	2014-05-09 14:24:35Z
Response	Arrival	ATIS	BIKF	EI	EI-DUO	F	2014-05-09 13:02:16Z
Response	Arrival	ATIS	BIKF	EI	EI-ELA	F	2014-05-09 12:22:59Z
Response	Arrival	ATIS	BIKF	ZD	OY-KBM	F	2014-05-09 12:13:06Z
Response	Arrival	ATIS	BIKF	SK	OY-KBM	F	2014-05-09 12:07:57Z
Response	Arrival	ATIS	BIKF	LH	E	E	2014-05-09 11:44:07Z
Response	Departure	ATIS	BIKF	SK	LN-RCY	E	2014-05-09 11:16:16Z
Response	Arrival	ATIS	BIKF	ZD	E	E	2014-05-09 11:14:35Z
Response	Departure	ATIS	BIKF	SK	LN-RCY	D	2014-05-09 10:58:10Z
Response	Arrival	ATIS	BIKF	ZD	C	C	2014-05-09 10:29:15Z
Response	Arrival	ATIS	BIKF	SK	LN-RCY	C	2014-05-09 10:18:39Z

D-ATIS Message
ACM AN N283AY - BIKF ARR ATIS K 1500Z RWY 11 IN USE. EXP ILS APCH. RWY 11. BIKF 091500Z 06004KT 360V070 9999 FEW025 SCT050 BKN065 09/M01 Q1004 A2965 = TRANSITION LEVEL 75. BIRD ACT IS MOD. SURFACE DRY. FLIGHT CHECK IN PROGRESS RUNWAY 20. ADZ ON INITIAL CTC YOU HAVE INFO K.

*In continuous operation at almost **300 sites** in some of the most demanding ATC environments, **STARCASTER®** has completed **over 20 million broadcasts** containing critical weather and airport information.*

Contact us

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Visit our website for StarCaster demos and audio samples at www.speechtech.com

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STR acknowledges NAV Canada's contribution of aviation domain knowledge as related to aviation and briefing services.



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Quality that speaks for itself

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