

StarCaster ATIS (Automatic Terminal Information Service) is a comprehensive solution for the broadcast of ATIS messages at airports of all sizes. It is designed for use by Air Traffic Control personnel to automatically create, monitor and broadcast clear and consistent, natural voice ATIS messages and has been successfully installed in over 100 locations worldwide.

StarCaster ATIS was developed using a highly flexible, modular design and is easily configured to meet site-specific requirements. It is a PC-based system that operates in a Windows environment, using commercially available off-the-shelf (COTS) hardware components.

## Basics of ATIS message creation

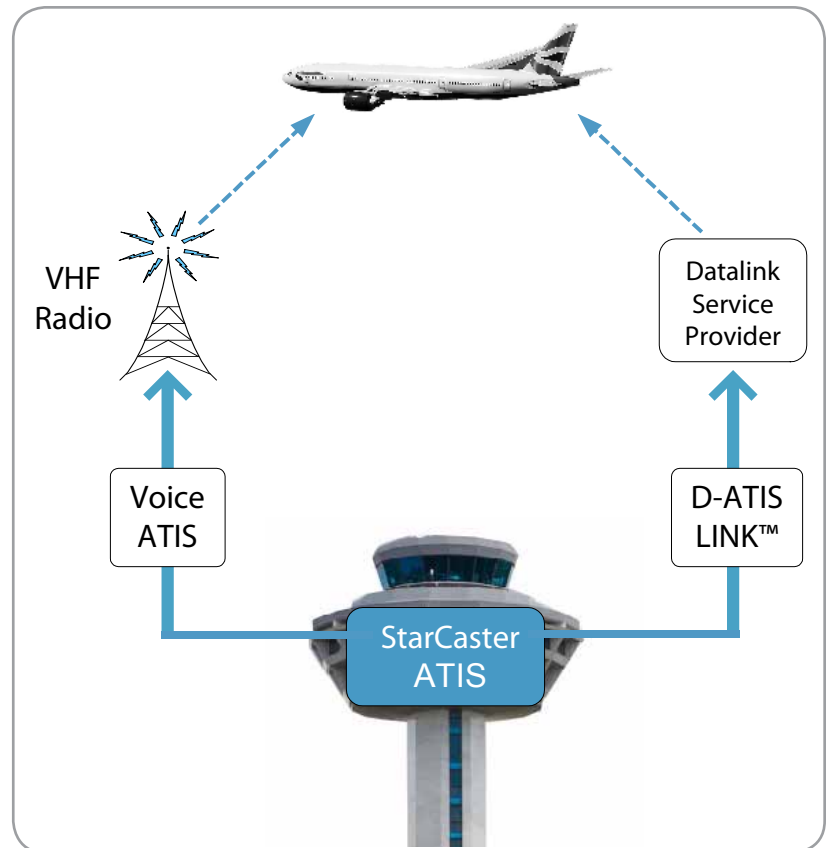
- Air Traffic Controllers use StarCaster ATIS software to create, update and verify the contents of ATIS messages
- Latest weather information is automatically incorporated into each ATIS message
- Each new ATIS message is monitored for accuracy before being broadcast

## Transmission

- **Voice ATIS:** Audio output of ATIS message to VHF radio with Push-To-Talk (PTT) control
- **D-ATIS LINK™:** Automatic transfer of D-ATIS messages through Datalink Service Provider to ACARS-equipped aircraft

## Broadcast Languages

- English
- English/Spanish
- English/Portuguese
- English/French



StarCaster ATIS Broadcast Network



## StarCaster Configurations

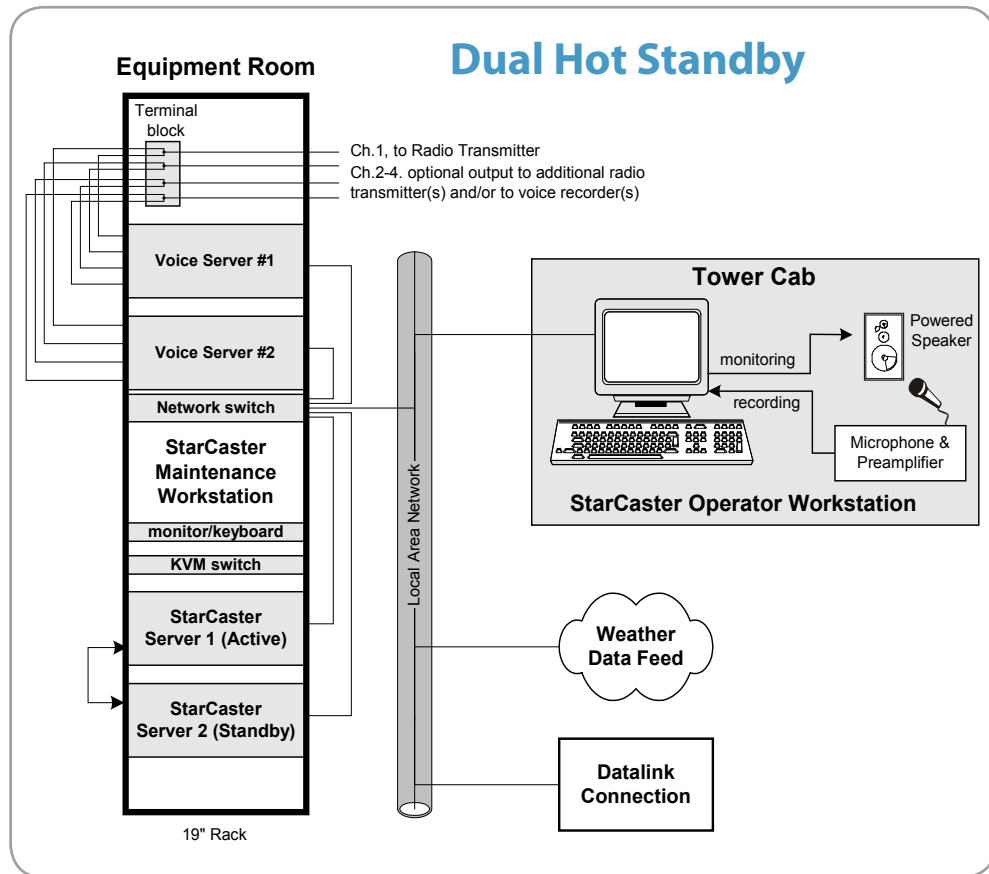
### Dual Hot Standby

#### Fully Redundant ATIS System

#### ATC Tower Cab:

##### StarCaster Operator Workstation:

- Fully configured personal computer running Windows Operating System
- User interface accessed by air traffic controller to create, update and verify contents of ATIS messages
- Monitor Broadcasts: Amplified speaker/headphones for monitoring audio output of the ATIS message prior to broadcast
- Optional Manual Recording: Audio recording equipment to make manual recording of ATIS broadcast components



#### Tower Equipment Room:

##### Two Redundant StarCaster ATIS Servers:

- StarCaster ATIS application software is installed on 2 rack-mounted servers (Active/Standby)
- Both servers are continuously updated with weather data and input from the Operator Workstation, so current ATIS information is always available on both servers
- Active Server creates audio files for ATIS broadcasts
- Audio files are sent via a Local Area Network to two Voice Servers
- If Active Server fails, Standby Server automatically takes over operations

##### Two Redundant Voice Servers:

- Rack-mounted voice servers are solid-state devices that provide continuous audio output of ATIS broadcasts to ATIS radio transmitter
- Active Voice Server receives audio files, converts digital signal to analog and sends it to ATIS radio transmitter
- The Active Voice Server controls the Push-to-Talk (PTT) functionality of the ATIS radio transmitter
- Configured for dual hot standby redundancy; if Active Voice Server fails, the Standby Voice Server becomes Active

##### Maintenance Workstation:

Provides User Interface to access maintenance functions on StarCaster server computers

##### Weather Data Feed: (AFTN/AMHS or AWOS)

Provides weather data (METAR/SPECI or MET Report/Special text data) to be included in ATIS Broadcasts. The StarCaster ATIS software monitors the weather data source on a continuous basis and automatically notifies the ATC Operator when new weather data have been received

##### Optional Datalink Connection:

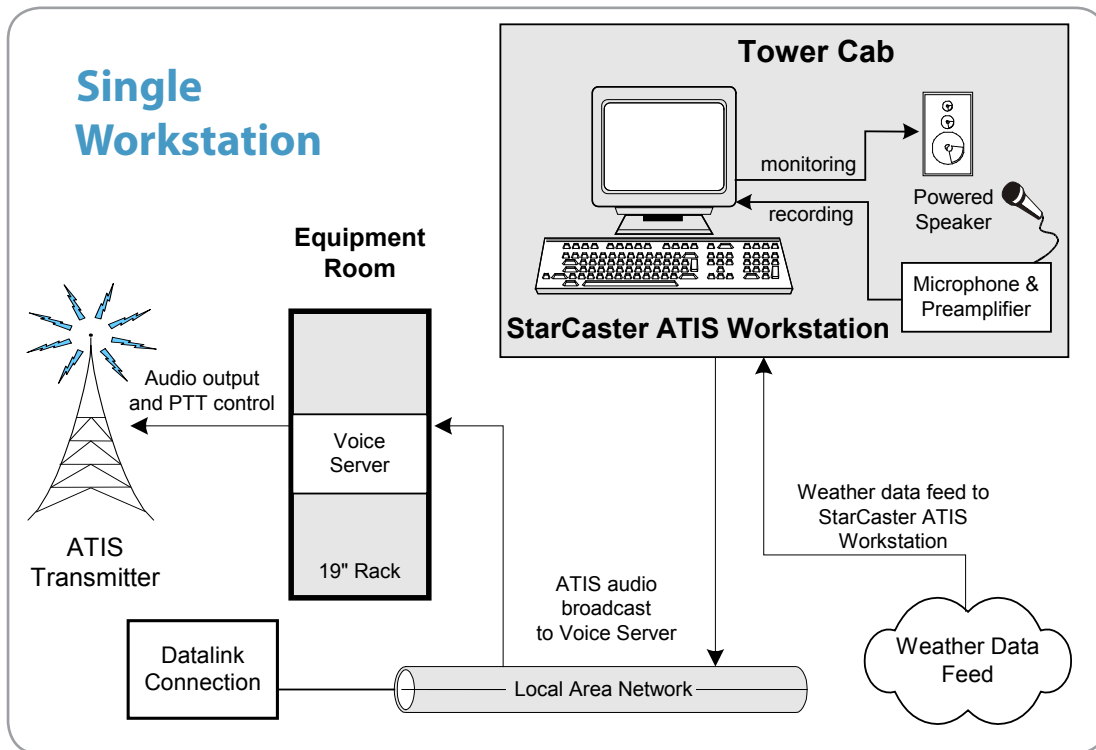
StarCaster ATIS creates D-ATIS messages in text format for transmission to ACARS-equipped aircraft via Datalink Service Provider (ARINC/SITA)



## StarCaster Configurations

### Single Workstation

Cost-Effective Solution for Smaller Airports



#### ATC Tower Cab:

##### StarCaster ATIS Workstation:

- Fully configured personal computer running Windows operating system
- User interface accessed by air traffic controller to create, update and verify contents of ATIS messages. StarCaster ATIS application software creates audio files for broadcasts
- Monitor Broadcasts: Amplified speaker/headphones for monitoring audio output of the ATIS message prior to broadcast
- Optional Manual Recording: Audio recording equipment to make manual recording of ATIS broadcast components

#### Tower Equipment Room:

- Rack-mounted voice server is a solid-state device that provides continuous audio output of the ATIS broadcasts to the ATIS radio transmitter
- Audio files are sent from ATIS workstation via a Local Area Network to the Voice Server
- Voice Server converts the digital signal to analog and sends it to ATIS radio transmitter
- Voice Server controls the Push-to-Talk (PTT) functionality of the ATIS radio transmitter

#### Weather Data Feed: (AFTN/AMHS or AWOS):

Provides weather data (METAR/SPECI or MET Report/Special text data) to be included in ATIS Broadcasts. The StarCaster ATIS software monitors the weather data source on a continuous basis and automatically notifies the ATC Operator when new weather data have been received.

#### Optional Datalink Connection:

StarCaster ATIS creates D-ATIS messages in text format for transmission to ACARS-equipped aircraft via Datalink Service Provider (ARINC/SITA)



## StarCaster User Interface

Air traffic controllers create new ATIS messages by selecting the following items:

- ATIS Identifier (ALFA to ZULU)
- Runway in use and approach-type information
- Current weather data (METAR/SPECI or MET Report/Specials)
- Transition Level
- Field conditions, including runway surface conditions
- NOTAMs and advisories

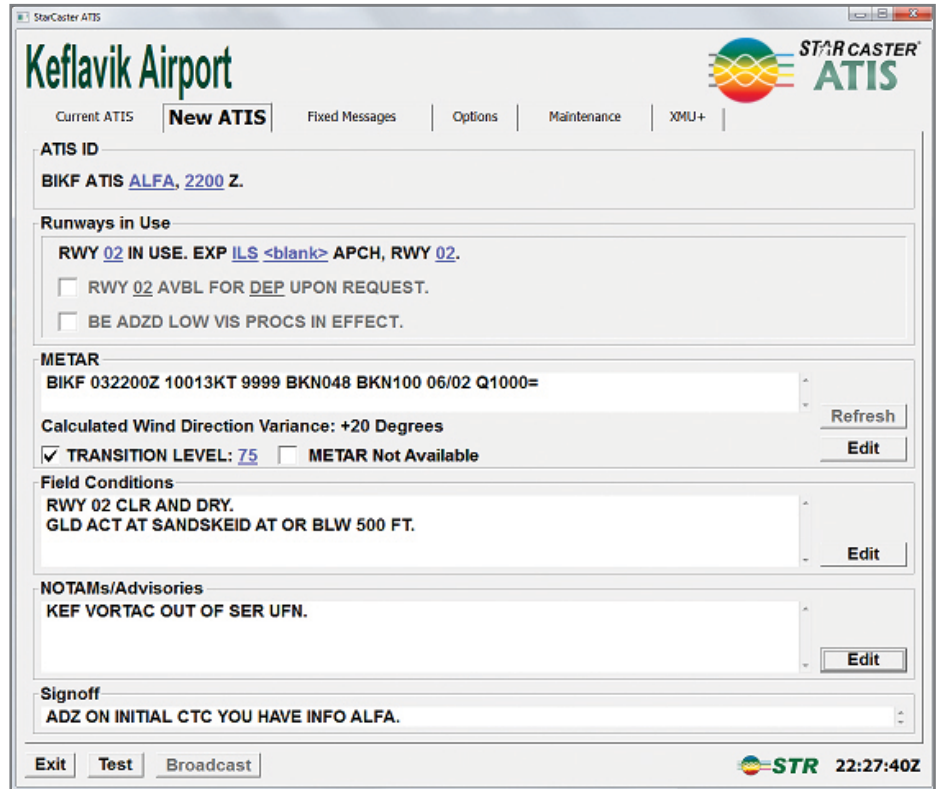
## Fixed Messages

Fixed Messages page allows operator to select pre-defined Fixed Messages to use during Tower Closures or during times of rapidly changing weather when pilots should contact ATC.

- Includes commonly used fixed ATIS messages, such as Tower Closure, Standby and ATIS Not Available messages
- Unattended Tower: Ability to append current weather, Field Conditions and/ or NOTAMS to the tower closure message for broadcast

## Additional Features of User Interface

- User-friendly navigation and work area
- Optional touch-screen interface for easy selection of items
- Optional entry of "free text"
- User Interface Languages: English, Spanish, Portuguese, French



StarCaster ATIS User Interface

## Weather Data Input

- Automatic incorporation of weather data from any weather data source
- Automatic conversion of METAR or MET Report data from its encoded format to expanded text for inclusion in ATIS broadcasts

## Other Features

- Complies with ICAO International Standards and Recommended Practices
- Speech rate: Adjustable without loss of quality
- Log Files: Automatic logging of weather data received, weather data errors, broadcast contents and technical errors
- Operations and Technical Maintenance Manuals included
- Training and ongoing maintenance support

## D-ATIS LINK™

StarCaster ATIS provides the ability to transmit the text of ATIS messages to ACARS-equipped aircraft via Datalink. This D-ATIS LINK functionality interfaces with a Datalink Service Provider (ARINC or SITA), enabling the text of current ATIS messages to be automatically transmitted to aircraft.

### D-ATIS Response Monitor Option (ARINC Datalink Service Provider) **NEW**

The D-ATIS Response Monitor is an application installed on the StarCaster ATIS computers and receives hourly reports from the ARINC Datalink server. These hourly reports contain all requests for D-ATIS messages made by arriving and departing aircraft, along with:

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

The D-ATIS Response Monitor application can be accessed from any StarCaster ATIS Workstation. This application provides a user interface for ATC personnel so they can view the D-ATIS Response logs.

The screenshot shows the 'D-ATIS Response Monitor Client' application. The interface includes a menu bar (File, Edit, Help), a filter panel on the left with fields for Response Type (set to 'Response'), Direction (set to 'Any'), Message Type, Airport ID (set to 'BIKF'), Airline ID, Aircraft ID, ATIS ID, Process Date (5/7/2014 - 5/9/2014), and Retrieval Date. Below the filter is an 'Information' panel showing 'Client Status: Connected to localhost', 'Server Status: No new items available', 'Last Update: 2014-05-09 18:05:35Z', and 'Server Disk Usage: 61.0/455.6 GB (13.0%)'. A 'Retrieve Responses' button is located at the bottom of the information panel. The main area displays a table of responses with columns: Response Type, Direction, Message Type, Airport ID, Airline ID, Aircraft ID, ATIS ID, and Process Time. The table shows 194 of 3924 items. One row is highlighted in blue: Response Type: Response, Direction: Arrival, Message Type: ATIS, Airport ID: BIKF, Airline ID: US, Aircraft ID: N283AY, ATIS ID: K, Process Time: 2014-05-09 15:08:56Z. Below the table is a 'D-ATIS Message' display area showing the text: 'AGM 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.'

D-ATIS Response Monitor User Interface

## Deployments



## Contact us

We look forward to hearing from you.

Email: [info@speechtech.com](mailto:info@speechtech.com)

Tel: +1.250.477.0544 (GMT-8)

212-1001 Cloverdale Ave, Victoria, BC, Canada V8X 4C9

Visit our website for StarCaster demos and audio samples at [www.speechtech.com](http://www.speechtech.com)



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



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