



brandes associates inc.

Information **D**ecision **S**upport **S**ystem

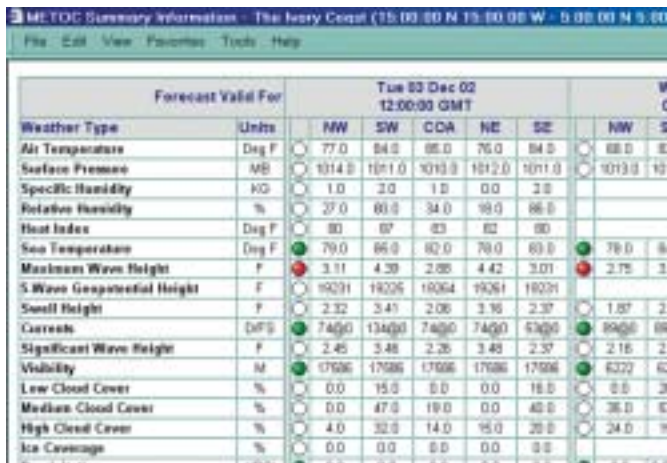
*Efficient application
of weather, intelligence,
and imagery*



CREATING ORDER FROM CHAOS

The most valuable commodity in today's planning environments—whether warfare or civilian—is available time for effective application of human knowledge, experience, and skills. Today, 50% or more of mission planning is spent merely retrieving and consolidating critical information from ever more complex and diverse data sources.

Data management tools have not kept pace with this data proliferation—many current decision-making aids are unable to meet users' needs for tailored information in a tactically and strategically useful timeframe.



Forecast Valid For		Tue 03 Dec 02 12:00:00 GMT						W
		NW	SW	COA	NE	SE	NW	
Weather Type								
Air Temperature	Deg F	77.0	84.0	85.0	76.0	84.0	88.0	
Surface Pressure	MB	1014.0	1011.0	1013.0	1012.0	1011.0	1013.0	
Specific Humidity	KG	1.0	3.0	1.0	0.0	3.0		
Relative Humidity	%	27.0	80.0	34.0	99.0	86.0		
Heat Index	Deg F	80	87	83	82	80		
Sea Temperature	Deg F	79.0	86.0	82.0	79.0	83.0	79.0	
Maximum Wave Height	F	3.11	4.39	2.88	4.42	3.01	2.75	
S Wave Geopotential Height	F	19291	19226	19264	19261	19291		
Swell Height	F	2.32	3.41	2.06	3.16	2.37	1.87	
Currents	DFS	7490	13490	7490	7490	5295	8905	
Significant Wave Height	F	2.45	3.48	2.26	3.48	2.37	2.16	
Visibility	M	17696	17696	17696	17696	17696	6322	
Low Cloud Cover	%	0.0	15.0	0.0	0.0	18.0	0.0	
Medium Cloud Cover	%	0.0	47.0	19.0	0.0	45.0	38.0	
High Cloud Cover	%	4.0	32.0	14.0	15.0	20.0	24.0	
Ice Coverage	%	0.0	0.0	0.0	0.0	0.0		

Weather data returned by IDSS

A PROVEN SOLUTION: THE BAI IDSS

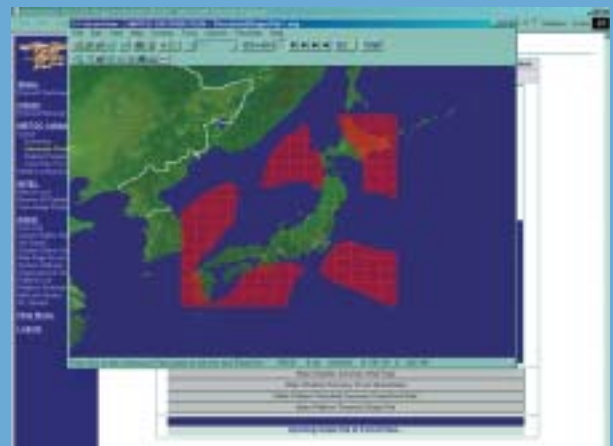
The Information Decision Support System (IDSS) from Brandes Associates, Inc. is a revolutionary data integration product that makes retrieving, tracking, and leveraging weather, intelligence, imagery, and other essential data easier and faster—freeing valuable time for the solutions only human insight can contribute.

Originally developed to meet the rigorous demands of Naval Special Warfare mission planning systems, IDSS can collect, filter, and tailor certain weather, oceanographic, intelligence, and imagery data. The resulting consolidated and customizable data picture is:

- ▶ Rapidly delivered to appropriate subject matter experts for validation and informed decision-making.
- ▶ Subsequently made available to any number of consumers, through information packages tailored for specific geographic and mission needs.
- ▶ Automatically maintained and updated using the most current source data.
- ▶ User-accessible and controllable anytime, anywhere through a web browser interface.

POWERFUL CAPABILITIES

- ▶ **Integrates diverse data formats and sources.**
- ▶ **Capable of fetching data for hundreds of distinct geographical areas**
- ▶ **Comprehensive data handling.**
- ▶ **Web browser interface - simple to operate**
- ▶ **Interoperable with numerous 3rd party applications**
- ▶ **Exports data in MS Excel and PowerPoint formats**
- ▶ **Generates PFPS FalconView shape files for visual representation of weather data**
- ▶ **One button export to Microsoft Excel and Power Point**
- ▶ **Bandwidth limitation aware**



Threshold Shape file in FalconView displays areas where wind thresholds have been exceeded for parachute operations.

BENEFICIARIES / POTENTIAL APPLICATIONS

- ▶ **Originally developed for special operations mission planning**
- ▶ **Tactical, strike and patrol aviation uses**
- ▶ **Maritime planning - oceanographic information**
- ▶ **UAV mission planning**
- ▶ **Littoral operations**

DATA INTEGRATION

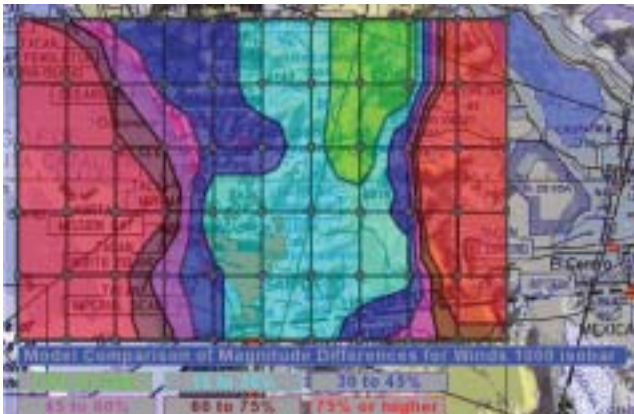
Specially tooled to function as an Executive Information System, IDSS can retrieve and consolidate data for hundreds of distinct geographical areas at multiple levels of complexity. Key features include:

- ▶ Summary composite snapshots of all available data.
- ▶ User-controllable drill-down to point-by-point data for any given source.
- ▶ Resolution down to latitudinal/longitudinal minute.
- ▶ Easy access to diverse intelligence resources: user-defined Image Product Library (IPL) servers and intelligence servers, including the national level Modernized Integrated Database (MIDB) for Order of Battle data, weapons systems' characteristics, and national-level imagery.

WEATHER

IDSS retrieves and integrates timely, complete weather data from worldwide classified and unclassified government and civilian weather servers.

- ▶ Temperature, pressure, visibility, precipitation, wind speed, and solar/lunar projections, and more.
- ▶ Weather readings available over land or sea.
- ▶ Displays many types of imagery snapshots (visible light, infrared light, wind rate, water vapor, the 85 GHz electromagnetic spectrum, and more). These weather imagery snapshots provide amateur and professional meteorologists alike with the most complete weather overview currently available.



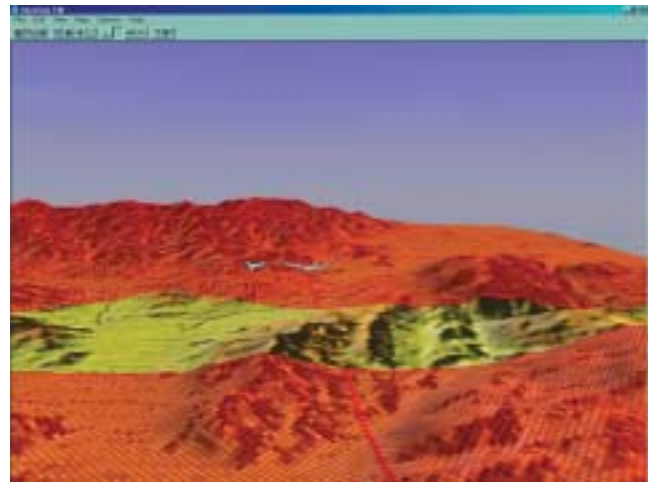
IDSS Model comparisons based on data magnitude

IDSS is also integrated with numerous third party applications for the most efficient viewing of data. IDSS exports data in Microsoft Excel and PowerPoint formats, and can generate PFPS FalconView/ SkyView shape files and drawing files for enhanced visual data representations.

MISSION PLANNING

IDSS decreases the length of mission planning time through:

- ▶ Dynamic, hierarchical organizational unit structure for restricting weather/intelligence data access to only necessary viewers and groups.
- ▶ Reconciliation of weather events, local threats, and terrain elevation to present different route possibilities.
- ▶ Comparisons of prospective platforms (boats, parachutes, etc.) and their operating envelopes to relevant weather parameters, alerting users when specified thresholds are exceeded with color-coded severity indicators for quick impact assessment.



Threshold shape file in PFPS SkyView displays areas where mission platform thresholds have been exceeded.

FUTURE TACTICAL ENHANCEMENTS

The TDSS component (in development) will extend route planning through incorporating:

- ▶ Assessment factors such as least risk, shortest time, smallest expenditure of energy, and avoidance of user-specified obstacles (roads, rivers, or other geographical features).
- ▶ Full quantitative metrics for comparing similar routes, deriving the best possible route recommendations (for walking, helicopters, and certain ground vehicles).
- ▶ Fully-independent, resident computer application capability for offline use, conserving valuable internet bandwidth.

To find out how Brandes Associates can assist with your data retrieval and integration needs, contact our IDSS Project Office at (619) 269-7088 or email: idsinfo@brandes-assoc.com



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