

A-CAD - Advanced Computer-Aided Dispatching

The Advanced Computer-Aided Dispatch (A-CAD) system provides automated dispatch for Law Enforcement, Fire, Rescue, EMS and other agencies. Both multi-agency and multi-jurisdictional in nature, the system manages resources and recommends units for dispatch. Complaint-taking and dispatching data entry are done on-screen as calls are taken. The system continuously updates all information so that current field conditions can be viewed at any time. The A-CAD design speeds call entry and dispatch while increasing accuracy and field safety.

A-CAD reports supply information needed for effective resource allocation. Trouble spots can be pinpointed and individual officer performance can be evaluated. In addition, completed call entries can be transferred to CISCO's CAPS, FIRES and EMS, when present, for record management processing.

A-CAD is designed with English language use and requires no special technical the flexibility to configure calltaking and a combined operation. The system is authorized personnel have access to allowed



menus and prompts. The system is easy to knowledge. A-CAD provides agencies with dispatching either as separate functions or as provided with security features so that only functions.

The system makes use of color to enhance at-a-glance conditions; for example, color differentiation is applied to single vs. two man units, to active units who have not responded within a user-defined time frame and to units operating out of jurisdiction. E9-1-1 interfaces are available and are widely implemented. Also available are state and NCIC interfaces, as well as the integration of MDDs, (which can be terminals or laptops), AVL, Mapping, Time Synchronization and other systems. A-CAD has an optional redundancy feature which links two computers together so that all system functions are automatically duplicated in case of hardware failure; dispatching can continue uninterrupted without loss of information.

COMPLAINT TAKER

Complaint Takers have the ability to record all relevant information about the call. The call is then either filed if no action is required, or queued for Dispatcher action. Complaint Takers can obtain additional information on the call even after it has been dispatched; updates are sent to the dispatcher, who is notified of the update by visual and audible alerts. The Complaint Taker screen shows pending calls, active units, and the current time. This information remains on the screen during call entry.

TAKE A CALL - The call information is entered by either command line processing or a fill-in-the-blanks data entry screen which is always on display at the bottom of the screen. This at-a-glance data entry screen prevents complaint-takers from forgetting to enter necessary information. The complaint-taker enters a call type which establishes what the complaint is, what type of unit(s) should respond, and what priority the call has. This information is user-defined and is coded through the Dispatch Utilities module.

The complaint-taker then enters an address, common place name, or alarm number. The system checks the entry against the geobase to determine whether it is a valid entry. If it is not, the system will either reject the address or provide a list of possible alternatives. The complaint-taker may accept an alternative, override the rejection, or enter a new address.

The call can be checked to see if duplicate calls have been received, and then the call can be queued for dispatch or filed as a log entry only. The system Time Stamps each call with date, hour, minutes and seconds. A time stamp is also applied when the call is dispatched, when the first unit arrives, and when the call is cleared and filed.

After the call is queued or filed, it can be retrieved for information updates. The complaints taken for each dispatcher will appear on the appropriate dispatching screen. Pending calls are stacked in order of priority and time received. Active units can be displayed by either Unit or Event Number.

The complaint-taker can scroll all pending calls and active units to view the current field conditions.

An inquiry menu allows the complaint-taker to access file records in both A-CAD and other CISCO programs (if present) to gather or verify information. Inquiries include Businesses, Calls For Service, Field Contact, Hazardous Materials, Hazard Warnings, Hydrant Locations, Master Name Index, Permits, Personnel Skill Matrix, Property, Report Number (Case Inquiry), Standard Operating Procedures, Vehicles, Wants/Warrants, Contact Names, Disaster Resources and Burn Transactions. Without leaving A-CAD and with the proper permissions, data can be input for Warrant and Civil Process Transactions, Automatic Call Entry, Burn Permits, BOLOs, Animal Citations and Towed Vehicles. An inquiry can also be made for an individual unit's activity record.

Calls are stacked in order of priority, and color enhances this feature by color-coding the priority as well.

DISPATCHER

Like the Complaint-Taker module, the Dispatcher module is accessed through a sign-on menu for security purposes. In addition to all complaint taker functions, the Dispatcher can also take and queue calls, dispatch units and towing vehicles, clear calls and update unit status.

DISPATCH A CALL - The dispatcher can retrieve a call from the pending queue or enter a call directly, using either command line processing or the input mask. The system displays warnings and premise history information associated with the call's address. Information about hydrants is displayed for Fire calls and crucial data can be routed to Fire station printers. The system generates unit recommendations based on the closest available unit as well as the type and number of units required. The dispatcher may accept the recommendation, reject the recommendation and enter a different unit based on personal knowledge, or re-queue the call.

Built into the system are features specific to the type of agency being dispatched. For example, Police and Sheriff Departments will make use of Traffic Stops and BOLOs as well as the entering of calls which accept supplementary Vehicle and/or Suspect data. Fire Departments will appreciate the flexible Run Orders module which allows complete user-defined dispatching by unit or Company. EMS agencies can make use of the CISCO Emergency Medical Dispatching system or can utilize the optional interface to commercially available systems.

RETRIEVE A CALL - Calls can be retrieved from the pending queue or from the log. Each call is assigned a unique number when it is received and is retrieved by requesting the particular log entry. Calls can be returned to the pending queue or can be dispatched immediately.

UPDATE UNIT STATUS - The dispatcher can update a unit's status at any time. Units can be brought on duty, taken off duty, either temporarily or for long term absences, units can be en route or arrived with notations as to where and when, units can be active or cleared. All available units appear in a list at the top of each dispatcher's screen.

OVERDUE UNITS - The system tracks the time that has elapsed since last status update, and when the unit is overdue to respond, it is given a P status - Possible dangerous situation. For fire and rescue units, the timing spans the time elapsed between dispatch and arrive; for other units, the timing starts with the time arrived. If the monitor is displaying color, the unit appears in red. The dispatcher may verify the overdue time, resetting the clock for any time period desired, or turning off the feature entirely.

MONITOR

Supervisors can view multiple single-screen displays of system activity and resources through the Monitor function. These at-a-glance overviews display pending calls, active units, available units, and the time spent on calls.

Screen information available includes: Pending and active calls for all dispatchers, pending calls for the specified dispatcher or all dispatchers, active units for the specified dispatcher or all dispatchers, and available and active units for the dispatcher or all dispatchers.

A specific selection provides all Fire activity, including displays of equipment which have been moved up and their current station assignments.

DISPATCH UTILITIES

Dispatch Utilities provides the user-definable records that A-CAD uses for cross-checking and referencing. Some of these are: Call Types, including the number and types of units the system will recommend, and other geobase modules, Address Advisories, Automatic Call Entry, Run Orders, Tow-in Log, and Building and Business Preplan.

A-CAD uses a comprehensive geobase to provide the complaint-takers and dispatchers with the location cross-checks, location alternatives, address advisories (hazard warnings), and call, unit, and unit-assigned area codes. The Utilities module has an easy-to-use English language menu and prompt design which makes geobase construction simple and efficient. The data entry system allows the user to enter, alter, and delete records, and includes a multi-level security feature to maintain the integrity of files. User-defined code tables increase the efficiency and accuracy of data entry.

The geobase is built with data elements for:

Agency	Grids
Areas	Unit
Intersections	Street Names And Spans
Common Places	Call Types
Dispositions	Parameters
Dispatcher	

These files interact and combine to produce the system responses within the complaint-taker and dispatcher modules.

Agency-defined tables provide the database used by the complaint takers and dispatchers. The Dispatch Utilities menu selections to establish this database are:

- Unit Maintenance
- Common Places
- Intersections
- Street Spans
- Street Names
- Beat Patterns
- Alarms
- Address Advisories
- Dispositions
- Agencies
- Building Information And
- Hazardous Material Specifications and Locations

All of these selections include a print option which will print a list of all records on file.

The Automatic Call Entry feature allows the agency to enter a Call For Service which will appear on a dispatcher's screen at a pre-designated time.

Run Orders allows each agency to define in what order its units or companies will be dispatched specifically for each pattern, pattern type and grid.

DISPATCH REPORTS

A-CAD has several pre-programmed reports which can be generated with minimal operator action. An Officer Daily Summary provides a summary listing of officer activity for selected officers within a specified date and time range. An Event Log can be created for any specified event (call); Area Patterns by Grid lists; area patterns, precincts and backup areas for each grid; Geofile by Grid lists all geographic elements within a specified grid; Wrecker Log provides a list of Wreckers called, with date, time, and disposition of the call; and a Forced Address List provides management with a list of all addresses which were overridden and need entry into the geobase.