5 FAH-2 H-530 CIRCUIT MAINTENANCE

(TL:TEL-2; 05-23-2002)

5 FAH-2 H-531 GENERAL

(TL:TEL-2; 05-23-2002)
(Uniform all agencies)

Maintaining telegraphic circuitry means establishing a reliable connection to the relay station and preserving all processing and transmission equipment in good repair so the circuit is continuously available to transmit and receive telegrams. The following information is intended as guidelines. Procedures should be adapted to the unique needs and circumstances of each post.

5 FAH-2 H-532 CONTINGENCY GUIDELINES

(TL:TEL-2; 05-23-2002)
(Uniform all agencies)

IPC personnel are responsible for the reliability, availability, and restoration of all circuits and networks that terminate or transit through IPC. The IPC telegraphic circuit that is terminated at the TERP, provides a ready sample of the network and is assigned the highest restoration priority. IPC personnel should constantly observe circuit conditions so that problems can be detected and circuits restored as quickly as possible. Listed below are some circumstances that will indicate poor signal quality, transmission equipment problems or circuit outage:

(1) An unusual number of transmission garbles that appear on distribution copies or cause telegrams to spill to error queues in telegraphic processors;

(2) Frequent or numerous missing CSNs;

(3) The TERP V "systems events" window displays errors and problems within the processor itself;

(4) A lack of activity in the processor may indicate the circuit has dropped out; and

(5) Synchronization indicators on peripheral devices carrying the signal indicate whether the circuit is in sync or not.

5 FAH-2 H-533 TROUBLESHOOTING GUIDELINES

(TL:TEL-2; 05-23-2002)
(Uniform all agencies)

a. At the first sign of aggregate or customer circuit impairment or outage, notify the NMC at (703) 302-7899. If the NMC is unavailable, notify the appropriate NOC [RRF Beltsville (301) 985-8100 or RRF Brandy (540) 829-4551 or (540) 829-4550 (and request to be connected to black FACON)]. After, or concurrently if possible, you have notified the NMC or appropriate NOC, contact RRF Beltsville's Primary Tech Control at (301) 985-8122 to request a QRT of your telegraphic circuit.

b. The first step in troubleshooting is to check the circuit at the post. Follow documented post procedures to test signal loops up to and including the local carrier, or the last element of transmission equipment that can be looped on the post side of the circuit. If the signal passes through an intermediate station before the relay, test signal loops with that station.

c. If the fault cannot be traced to the post or an intermediate station, ask tech control to continue circuit tests at the Beltsville/Brandy end until the fault can be identified, remedial action taken and the circuit restored.

d. Once the circuit is restored, send a service to RUEHCK advising the reason for outage and the restoration of the circuit. Send a second QRV service to RUEHZZ to have STARS begin transmitting again.

e. Send a DTS CHANNEL telegram to DTS-PO, the Network Control Centers, the Area Telecommunications Office Headquarters, the RIMC and regional ATO, as described in 5 FAH-2 H-516.

5 FAH-2 H-534 DOCUMENTATION GUIDELINES

(TL:TEL-2; 05-23-2002)
(Uniform all agencies)

In the event of equipment failure or circuit outages, the expertise of the IPC staff is crucial in solving the problem. The best tool at their disposal is

comprehensive documentation that includes procedures to trace problems in the telegraphic circuitry. This documentation should contain detailed documentation for the following:

(1) Signal flow diagrams for the primary route;

(2) Signal flow diagrams for the alternate route;

(3) Diagrams of where to place patches for the alternate route;

(4) Business hours and after hours telephone numbers for the RIMC and any other office with regional technical control responsibility; and

(5) To provide for fault isolation, diagrams and instructions for looping the signal at various points.

5 FAH-2 H-535 ALTERNATE ROUTES

(TL:TEL-2; 05-23-2002)
(Uniform all agencies)

Each post must establish an alternative route for the telegraphic signal and test it on a regular basis to ensure it will be operable should the primary route be out of service. Each IPC staff member must be fully trained and capable of establishing the altroute. Include altroute procedures and detailed documentation in the SOP. This documentation should also list those circuits which are restored on the alternative route, as well as list those circuits which will not be available until the primary path has been restored.

5 FAH-2 H-536 THROUGH H-539 UNASSIGNED