



M E M O R A N D U M

TO: AOLS Membership
FROM: Lorraine Petzold, O.L.S.
Executive Director
DATE: April 10, 1991

RE: "SURVEYING THE DISASTER SCENE"

Attached is the presentation made by Earl Gibson and Peter Butcher, to the Annual Meeting on Wednesday March 6, 1991, on the above captioned O.P.P. Telecommunications Project.

It has been 3-hole punched and stapled for insertion in your Manual for easy access.

MINISTRY OF THE SOLICITOR GENERAL

O.P.P. TELECOMMUNICATIONS PROJECT

SCOPE OF WORK

COORDINATE SURVEY

FOR INCIDENT OCCURRENCE

AREA

MARCH 1991

- 1.6 The items located may consist of physical debris, personal belongings and human remains. At the discretion of the O.P.P. the items may first be removed and their locations identified by labelled stakes.
- 1.7 As part of the technical services provided, no item or stake may be altered in any way.
- 2.0 TECHNICAL REQUIREMENTS
- 2.1 The preferred method of locating items is through the use of electronic distance and angular measuring survey equipment.
- 2.2 The preferred method of reducing the item locations to coordinates and producing a plot is through the use of electronic data storage and plotting equipment.
- 2.3 The intent of clause 2.1 and 2.2 above is to secure the most time efficient means of site work and document production with an order of accuracy of plus or minus 0.1 meters.
- 2.4 A minimum of two permanent base line stations, visible to one another, shall be established on site.
- 2.5 The base line stations shall be either standard iron bars or cut crosses as applicable.

- 2.15 Three (3) copies of the following documentation shall be provided on plain paper:
- a. baseline orientation and reference
 - b. plot of incident items only with the designated identifier label on each item
 - c. plot of incident items together with existing survey monumentation and topographic features
- 2.16 Upon request, the documentation noted in clause 2.15 above shall be prepared in A1 size format on a hard backing for presentation purposes.
- 3.1 It may be necessary for the personnel involved in the work to provide evidence in judicial proceedings resulting from the incident. It required by the authority having jurisdiction, members of the survey party and others handling the data shall appear and give evidence in any judicial proceeding.

MINISTRY OF THE SOLICITOR GENERAL
O.P.P. TELECOMMUNICATIONS PROJECT

SURVEYING - THE DISASTER SCENE

Prepared by:

Peter W. Butcher, P. Eng.
March 1991

Incident Commander is faced with a problem - remove evidence as quickly as possible but be sure to accurately and precisely record its location for future use. This is where your services can be used.

The OPP and most police organizations do not and probably will not have surveyors on staff nor do they have survey equipment. Our proposal is to have a survey firm supply the personnel and equipment to accurately, precisely and quickly locate the evidence at a major occurrence site. It is our hope that each Incident Commander will have a list of survey firms that could be called upon when necessary. This presentation is, we hope, the vehicle to start this process.

The current practice of the OPP and most other police organizations when handling a large occurrence is to either lay out an actual grid of stakes on the ground with two cloth tapes and then tie each piece of evidence to the grid stakes. The other way is to place a numbered stake at each evidence location for later incorporation into a future grid. The use of a transit or even a right angle prism is not common practice. It is obvious that these procedures are time consuming, imprecise and may not be at all accurate. In most cases little or no effort is taken to make the work reproducible or tie it to the surrounding area. Plotting the information is normally done by Police personnel with little or no drafting experience or equipment. Again plotting becomes time consuming and imprecise.

In general terms we propose the following:

be in accordance with the identification system being used on site. We see the Rodman working with an identification officer as he undertakes his field duties.

5. Once the survey is complete, permanent control points are placed and the survey is tied to the surrounding area.
6. As soon as possible a plot of the survey is prepared and turned over to the Incident Commander.

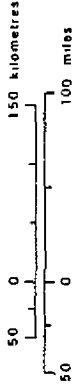
From a police point of view, the following are the advantages of using a survey firm rather than traditional methods.

1. Faster field work.
2. Produces results ie. plot much faster.
3. Precise.
4. Frees up police personnel.
5. Economical for large sites with large numbers of objects.
6. Topographic data can be determined and produced.
7. Not adversely affected by rough terrain and/or wooded areas.
8. Lowers the number of persons working in the area.

APPENDIX 'A'

OPP DISTRICT MAPS

OPP DISTRICTS NORTHERN ONTARIO



• DISTRICT HEADQUARTERS

CARTOGRAPHY BY TELECOMMUNICATIONS PROJECT

UPDATED TO MARCH 1988

