

RESOURCE NOTES

NO. 14

Date 5/23/2000

Paneling for Photogrammetric Mapping

*Nancy K. Russell,
Cartographer/Photogrammetrist
National Applied Resource
Sciences Center (RS-140)*

Background:

Have you been asked to place panels for a large scale photogrammetric mapping job? If so and you have never done this before, you probably have some questions regarding how to do this and how to make the panels. This Resource Note is an attempt to clarify some of those questions.

Discussion:

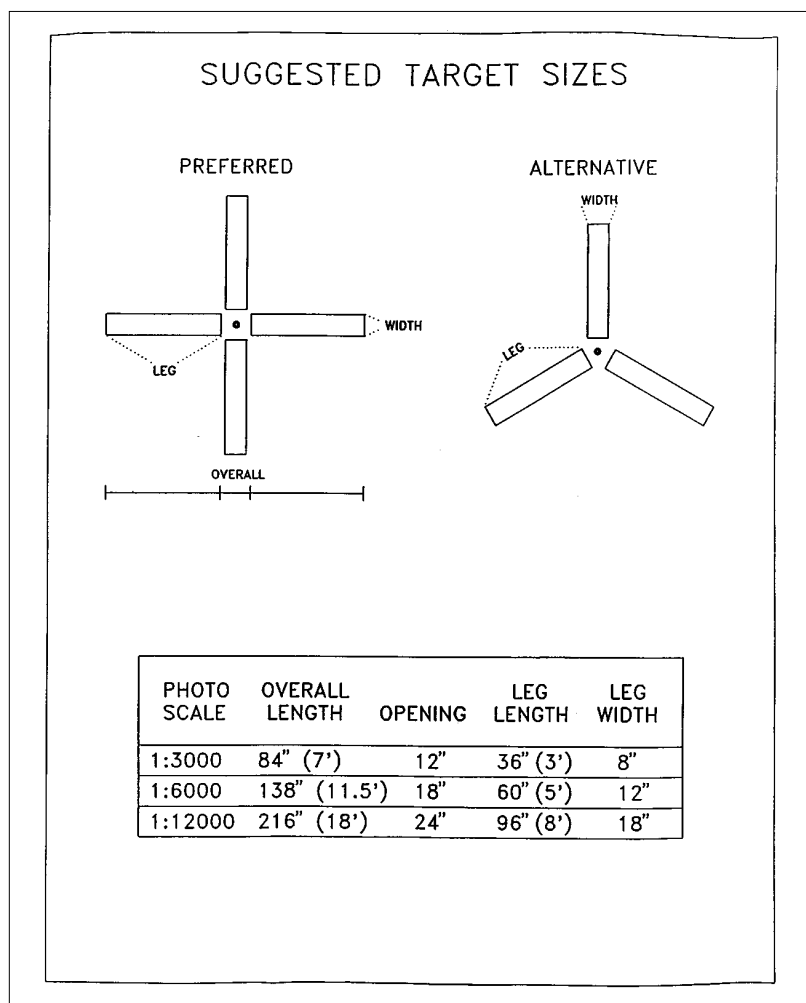
Lets talk about maps for a moment. Maps like the USGS 7.5 minute quad sheet or the BLM 100K maps are considered small scale for this discussion. You might notice that I called these maps we make "large-scale maps." Large-scale maps are maps that will likely have 1- or 2-foot contour intervals and give you a map scale of 1:100 or 1 inch on the map equals 100 feet on the ground. These maps are usually requested by engineers preparing to design recreation facilities such as visitors centers or campgrounds or to design roads. To make these types of maps, we need to fly project photography. This photography would probably be flown at about 3,000 feet above

the ground and will be called 6,000 scale photography. The "resource photography" typically used in the field offices is flown at about 12,000 feet above the ground and referred to as 24,000 scale photography. This photography is considered small scale and will not work for the large scale maps I am talking about. Precise surveying is required to extract the information needed to create large-scale maps. Panels provide a way for these precisely surveyed points to be seen on

aerial photography. While it is not necessary for the survey to be complete first, the panels must be in place before the photography is flown.

What is provided here are panel specifications for large-scale mapping and a few common sense rules that should be followed and will, hopefully, help ensure a successful outcome of a paneling project.

The specifications are:



A few other thoughts that might be helpful:

- You can move the panel location around within 100 feet without any problem.
- Panel locations have been carefully chosen. If a panel must be moved more than a 100 feet, discuss this with the photogrammetrist.
- Pick a spot that will allow the panel to be as flat as possible. Don't place it over bushes or boulders.
- Panels must have a clear view from above. If any designated locations do not have an open sky view, discuss this with the project flight designer (photogrammetrist) before you move the panel and photos are flown. This can usually be dealt with easily.
- Paneling material can be either fabric or plastic.

Material made specifically for this purpose can be purchased from engineering and/or surveying supply stores.

- At panel locations where there is an asphalt or concrete surface, the panel can be painted directly on the surface. Don't forget to get permission to do this though, where appropriate.
- The preferred color for paneling is white unless the desired location happens to be very white. In this case, black will be best. Bright colors often do not work.
- Photography might not be flown immediately after the panels have been placed. Make sure that the paneling materials are securely fixed to the ground and can withstand a delay. And conversely, you might need to plan to pick up the material after confirming the flight was successful.

- Each panel will need a recoverable spike or rebar at its center if not placed on an existing monument.

Conclusion:

While paneling might seem simple, following these guidelines will help ensure the success of a paneling project. It is not uncommon, especially in certain areas, to have the panels blown away, covered with blowing sand, or even eaten by cattle. If there are any questions still unanswered, please feel free to call me or the photogrammetrist on your project.

Contact: Nancy K. Russell
Cartographer/
Photogrammetrist
BLM National Applied
Resource Sciences Center
Denver, Colorado
303-236-8036
nrussell@blm.gov



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