**Review of Standard for Large-scale Urban Orthophotos (Zhou et al.)**

**According to Directive #2b, Standards Working Group Review Guidelines: Review Criteria/Checklist**

**1. Checklist For The Review of A Standards Proposal (Step 2)**

1. Evaluate the following parts of the proposal:

Title: Does the title clearly and adequately describe the project?

Yes.

Date of Proposal: Is there a submission date?

September 6, 2009

Type of Standard: Is the type of standard identified?

Cartographic Data

Submitting organization: Is the submitting organization identified?

Consortium of federal, local, academic and commercial organizations

Point of Contact: Is a point of contact identified?

I assume this is Dr. Zhou since he is the PI.

Objectives: Is the purpose clearly stated and is this an appropriate FGDC project?

The purpose is to provide a standard for “urban” large scale orthoimages. I think this is clearly stated, but is it a replacement for previous standard, or is it a new category? That is, there is no pre-existing standard for urban images.

I believe this falls within the purview of FGDC projects.

Scope: Is the scope clearly defined and reasonable for this standard?

The scope statement needs work. The proposal states: “The project only limits the development of Standard for Urban Large-Scale (e.g., 6 inch or one foot) Digital Orthophotos.”

Clearly the grammar needs work, as is the case for the rest of the proposal.

Also, the statement is vague. Will it include a review of all the categories of information in the original standard or is it limited to only certain aspects of the original standard?

Justification/benefits: Is there adequate justification for this project?

I would like to see explication of the specific shortcomings of the original standard when applied to large-scale images. The proposal states that errors have resulted from using recent orthoimages—what kinds of errors? Is this significant? I am not aware of serious problems that have arisen. Clearly, Dr. Zhou’s work focuses on the occlusion and shadow problem (Xie, Zhou 2008). Have practical problems arisen? Does LiDAR data used on its own obviate the need for a new standard for orthoimages? The proposal states that: “Many investigations have demonstrated that the procedures and algorithms used in the 1990s are not appropriate for large-scale urban orthoimage generation and the impacts of the problems have significantly influenced the usefulness of the orthoimage in industry because the error of these incompletely rectified orthoimagery maps no longer can be tolerated when used for updating and planning urban tasks. Thus, the revising the standard for orthoimages becomes obligatory.” I would like to see some references for this.

Development approach: Is the approach sound?

I think the approach of implementing a revision of the original standard is sound; leveraging the information it already contains while adding standards specifically related to the special requirements of large-scale urban imagery, etc. I am a bit unclear as to what is involved with part 4 of the approach: promotion and outreach by PI—needs further development.

Related Standards: If related standards or related standards projects exist, are there overlap issues that need to be resolved, or is there a need to coordinate with other standards projects? If an existing standard is being moved forward for adoption or is being modified for adoption, is the original standard identified?

The original standard is identified. As stated above, I am just wondering if this is a completely new standard, vs. an update to existing.

Development and completion schedule: Is schedule reasonable?

I trust the combined experience of the team in designing the schedule, which, while ambitious, does not seem overly optimistic.

Resources required: Does the proposal identify adequate resources to carry out the project?

Dr. Zhou is the only required resource listed—it’s good to be confident.

Potential participants: Are participants and lead organization identified? Is participation broadly based?

Participation is well-defined and broad, including federal, local, commercial and academic institutions.

Other Targeted Authorization Bodies: Are targeted standards bodies appropriate for this standard. Where is the most appropriate place for development of the standard?

Seems good. FGDC is good fit.

2. Is the standard independent of technology?

It appears so, with the exception of verification to be performed by the PI’s software, though this does not appear to be a for-profit type venture.

3. Can the standard be implemented with known or future technology?

Certainly.

4. Is the proposal presented in a clear and understandable way?

Not especially. I think significant editing is required.

5. Are there any questions that need to be answered or clarifications required before approval?

Just the comments given above.

6. Do you approve of this standards proposal? Explain reason for approving or not approving project.

Overall I believe this is a reasonable approach to revision of the standard. I do approve of this proposal with some revisions.

7. If proposal is approved, which FGDC Subcommittee or Working Group should be assigned sponsorship of the project? If a new FGDC sponsor group is identified, please justify.

Not sure.