Aviation Group (AV000)
SELF-EVALUATION OF COMMITTEE ACTIVITIES
Please complete the entire form. It is understood that all committees are not equally involved in all possible activities and there may be "not applicable" sections. Diversity amongst committees is valuable. Other committees in Group 1 will be able to learn from your shared experiences.
COMMITTEE NAME AND NUMBER: **AV070, Aircraft/Airport Compatibility**
COMMITTEE CHAIRPERSON: **Mr. Geoffrey S. Baskir, Airport Operations Subject Matter Expert, CSSI Inc.** DATE: **March 1, 2014**

1. **Committee Scope**:
   The committee is concerned with the development and application of techniques for analyzing the interface of civil aircraft with the airport and its environs and for providing a basis for decisions concerning design and operations of aircraft and airports that are safe, compatible, integrated, cost-effective and sustainable.

A. Date that committee last considered scope? June 2011.

B. Does the current scope statement accurately reflect the committee's activities?

   The committee's work focuses on research and development of aircraft and airport operational and design factors, particularly as these relate to:

   - Operational Efficiency;

   - Materials and Pavements;

   - Data Gathering, data sharing, data management, and geographic information systems;

   - Airport Capacity;

   - Safety, including Safety Management Systems (SMS);

   - On-Airport Environment;

   - Design of facilities to accommodate unmanned aerial systems (UAS);

   - Design of commercial spaceports;

   The committee feels the current scope statement accurately reflects the committee's interests and activities and should not be modified.

C. What changes are proposed and why are these changes necessary?

   The committee has looked at possibly adding more emphasis to security in its scope but decided that security was sufficiently addressed and the committee excluded terminal security as being the scope of another committee. No changes are necessary. The committee has also expanded its activities to include data gathering and management, including geographic information systems (GIS), ASDE-X data, mapping and photogrammetry, and Light Detection and Ranging (LIDAR).

   The Committee is exploring the participation in the Commercial Space Transportation Subcommittee and has contacted the Chairman of the Subcommittee for inclusion. It is anticipated

that design guidelines for commercial spaceports will gain increasing interest with the plans for commercial space ventures and the lack of planning guidelines.

In a similar vein, the Committee proposes to expand on the recent interest in Unmanned Aerial Systems (UAS) with a possible Subcommittee that will develop standards for planning of airfield facilities to accommodate these systems; an effort will be made to include AV060 in the planning of this Subcommittee.

2. **Committee Goals**
   A. Current Goals.

Anticipate future problems and develop research proposals and problem statements to address these needs.

Identify existing problems and/or technology needs and respond with appropriate research

Identify and promote emerging technologies

Disseminate available information that will improve aircraft/airport compatibility, including identified practice-ready papers

Provide expert guidance on policies and procedures that affect aircraft compatibility with airports, including the involvement of subject matter experts in implementing the new Advisory Circulars of the FAA

   B. Identify planned (up to 2 years) activities to achieve stated goals.

   The committee has in the past and will continue to support and provide subject matter experts in support of the Airport Cooperative Research Program. These efforts include promotion and promulgation of problem statements in the areas of aircraft/airport compatibility; pavement design, construction and management; safety management of airside operations; aircraft/equipment compatibility; airfield geometries; and data gathering and management. The Committee is continuing to review ACRP problem statements, technical reports, monographs, Journal articles, and papers submitted for presentation and publication. The Committee is working collaboratively with other TRB committees on common areas of interest and has formed a subcommittee on Airport GIS in cooperation with Committee ABJ60, Geographic Information Science and Applications. These efforts will continue and be expanded.

   The Committee intends to continue development and use of our social networking platforms (Google Groups, Linked In and TRB's own website) and outreach programs to identify prospective friends who could become candidates for membership. We will continue to provide content to all platforms and use them to promote Committee activities.

   C. Identify envisioned (3 - 5 years) activities to achieve stated goals.

   The committee will continue build a database of ACRP Problem Statements and Research Needs Statements to identify areas for future research initiatives.

   The committee will consider developing a regularly scheduled symposium on topical aircraft/airport compatibility issues, either as a stand-alone event or in concert with one or more committees within TRB.

The Committee will consider development of webinar material in a subject area appropriate to aircraft/airport compatibility.

The committee will consider developing a catalogue of "teaching tools" that will include webinars, handbooks and calculators on subjects related to aircraft/airport compatibility, including pavement management, GIS database development, electronic Airport Layout Plans (eALP's). Example websites and databases have been developed by state aviation agencies such as the Arizona Department of Transportation (http://www.azdot.gov/MPD/Airport_Development/airports/pavement.asp) that can serve as a model for development of similar information databases by the Committee.

3. **Committee Organization and Membership**

A. Number of members at current time? 30 Members and 2 Young Members (2 additional are sought along with 2 State DOT representatives

B. Geographical distribution (how current membership is distributed across the nation and worldwide).

C. Professional category distribution (how current membership is distributed across professional affiliations).

D. Number of friends listed as associated with the committee?

The Committee maintains a corresponding listserv with almost 200 friends on it. Additional names have been added to the list in the past three years and names have been removed upon notification of non-working e-mails. The LinkedIn Group has 156 participants, though there is a lot of overlap with the Members and Friends list (we are using the LinkedIn Group to add to our Friends list). A review that adds additional personal information about our Friends is recommended, and we have created an online form for prospective Friends to submit their full contact information.

E. Level of individual member involvement (high, medium, low).

The level of individual member involvement remains high. It is recommended that the Committee include at least one member with experience in airport operations, and an effort to find suitable candidates will be undertaken.

F. Committee morale (high, medium low).

Committee morale is high. Committee members are engaged and enthusiastic, and the Committee has participated actively in the review of paper submissions. Submission and review of ACRP problem statements and submission of papers for the annual Meeting will continue to be emphasized as committee activities. Establishment of a social media site and development of a Committee webpage has been helpful in encouraging new friends to participate in Committee activities and to eventually be considered for membership. Regularly scheduled teleconferences will help maintain communication within the Committee between annual Meetings, although participation by the International members is affected by time zone differences. The large number of industry and consulting community representatives will also require an active effort to find time to schedule the teleconferences at times when all members can participate.

G. List subcommittees and their chairs.

The Committee operates one subcommittee jointly with ABJ60, the Geographic Information Science and Applications Committee. The Airport GIS Subcommittee is co-chaired by Mark Ricketson and Randy Murphy.

The Committee is exploring participation in the Commercial Space Transportation Subcommittee, and several Members and Friends have sent word to the Subcommittee Chairman regarding their interest in participating.

The Committee is exploring the possibility of establishing a Subcommittee on Unmanned Aerial Systems, possibly in conjunction with AV060.

4. **Paper Review:** Please list number of papers reviewed by committee during the past 2 years.

2014 – 22 papers were reviewed (11 were presented, 4 were recommended for publication)
2013- 6 papers were reviewed
2012 - 14 papers reviewed (6 were presented in podium sessions and 4 of these were published)
2011 - 9 papers reviewed (2 were presented in podium session, 1 was presented in poster session, and 2 were published)
2010 - 10 papers reviewed (4 were presented in podium session, 1 was presented in poster session, and 2 were published)

5. **Interaction with Other TRB Committees and Technical Societies**

A. List other TRB committees which your committee maintains a formal liaison representation.

ABJ60 – Geographic Information Science and Applications Committee
AV010 – Intergovernmental Relations in Aviation
AV020 – Airport Systems Planning Committee
AV030 – Environmental Impacts of Aviation Committee
AV060- Airfield and Airspace Capacity and Delay Committee
AV090 – Aviation Security and Emergency Management Committee

B. List outside organizations which your committee maintains ongoing liaison representation.

ASCE Airfield Pavements Committee
ASCE Airport Planning and Operations Committee
FAA Research, Engineering and Development Advisory Committee (Airports Subcommittee)
FAA Pavement Working Group
ASTM E17 Vehicle Pavement Interaction Committee

C. Shared activities during the past year (examples should include co-sponsoring sessions, information exchange, research, etc.).

6. **Business Meeting Attendance**

A. Annual business meeting attendance:

       2010 __22___Members _ 18 Guests
       2011 __21___Members _14 Guests
       2012__22__Members__25 Guests
       2013__26__Members__22 Guests

2014__20__Members__30 Guests

B. Summer Business Meeting:

A midyear Committee meeting is planned for June 2014 in conjunction with the ASCE Transportation & Development Institute Congress. In addition, the Committee also holds teleconferences as Committee business warrants.

7. **Annual Meeting Sessions Sponsored**

A.   Number of annual meeting paper sessions sponsored?

2010 –One entire session was devoted primarily for paper presentation, with one invited presentation.
2011 – Two of the papers were presented in one of the four sessions. No entire session was dedicated to only paper presentations.
2012 – Six papers were presented in three sessions, for a total of 11 presentations including the invited speakers.
2013 – Two paper sessions were sponsored and one was co-sponsored.
2014 – One paper session was sponsored and two were co-sponsored; 11 papers were selected for presentation.

B. Number of annual meeting conference sessions sponsored?

2010 – 2 session were sponsored as lead. In addition, we co-sponsored 1 session.
2011 – 4 Sessions were sponsored as lead (2 were co-sponsored by other committees within Aviation Group as well as outside Aviation Group) and 1 workshop. In addition, we co-sponsored 1 session and 1 workshop
2012 – 3 sessions were sponsored as lead (1 was co-sponsored by AV030), 1 different session was co-sponsored in conjunction with other committees outside Aviation Group. 1 workshop was co-sponsored.
2013 – 3 sessions were sponsored in full or in part.
2014 – 3 sessions were sponsored in full or in part.

8. **Identify Additional Activities Sponsored During the Past Year.**

The Committee reviewed 22 problem statements for the FY 2014 ACRP funding cycle. Six Problem Statements were developed by the Committee in 2014. The Committee participated in a workshop process for the independent development of Problem Statements that was supported by TRB.

9. **Identify Additional Activities Scheduled for the Next Year.**

The Committee will sponsor a Session on major airport projects as part of the ASCE 2nd Transportation & Development Institute Congress in June 2014. This may be the precursor to continued participation by the Committee in future Congresses.

10. **Technology Transfer**

A. Is the committee planning to publish documents within the next two years?
Please list and give anticipated dates.

None scheduled.

B. Workshops proposed.

One workshop was proposed for the 2014 meeting; co-sponsored two workshops for the 2014 meeting.

Two workshops were proposed for the 2013 Meeting.

C. Conferences Proposed.

The Committee is participating in the ASCE 2nd Transportation & Development Institute Congress and is planning both a Committee meeting and a Session as part of the Congress.

11. **Research Needs (Developing Area in Group 1)**

The Committee, through its two Research Coordinators, has compiled a list of Research Needs Statements and a list of previously submitted ACRP Problem Statements.

A. Please list your most recent submissions of Research Problem Statements (RPS).

Eight Research Needs Statements were added to the database in 2013..

B. Number of Research Problem Statements developed in the last year?

Eight.

C. Number of Research Problem Statements under development?

None

D. Number of Research Problem Statements funded during last three years?

N/A

12. **Please Detail the Proposed General Committee Directions for the Next Three Years**

The committee direction is to continue to support the Cooperative Research Program as its first priority. The general direction is to continuing sponsoring session and encouraging research related to new-generation aircraft and their impacts on airport design. In addition, the Committee is following the introduction of Unmanned Aerial Systems and commercial spacecraft, focusing specifically on the compatibility questions raised by introduction of these vehicles.

Runway safety and the analysis of aircraft excursions and incursions will become an increasing focus of the Committee's activity. The FAA is transitioning from standardization of Runway Safety Areas at NPIAS airports and is beginning to turn its attention to the contribution of airfield geometry to runway incursions by aircraft with the intent of implementing improvements at those airports where geometry is a particular issue. The Committee will support these efforts with research and the provision of subject matter expertise.

New technologies for airport obstruction analysis, technologies introduced as part of the FAA's NextGen implementation and new airfield monitoring equipment will also be a focus of interest for the committee. In addition, new requirements such as the Electronic Airport layout Plan (eALP), Geographic Information Systems (GIS) database development and implementation of Safety Management Systems will be monitored by the committee and will allow opportunities for collaboration with other committees.

The Committee will have common interests with committees of other professional organizations, such as the ASCE Airfield Pavement Committee, some of whose members are also Members of this Committee, and there may be opportunities to work together jointly on projects.

Opportunities may also arise for the establishment of subcommittees jointly with other TRB committees, similar to the Airport GIS Subcommittee. Such collaborations may be undertaken to conduct research into pavements or to study airfield/airspace interactions.

13. **General Remarks and Comments Offered by the Committee**
    A. Should your committee continue in its present form with its present title?
    If no, please explain.
YES
    B. Should it be reoriented, restructured, or retitled?
    If yes, please explain.
NO
    C. Should it be merged with one or more other committees?
    If yes, please explain.
NO
    D. Does the existing Section under which the committee is organized consist of the proper committees and is its title appropriate?
YES

    E. Any other comments considered appropriate by the committee.
None at this time.