

Criteria Guidance Revision
For Airfield Improvement Criteria 1, 2, 3, 7, 9, 11, and 12
December 10, 2003

Criteria #1: Safety

The proposed project corrects or improves the following deficiencies.

**Raw
Score**

Criteria Guidance

5	<ol style="list-style-type: none"> 1. Community Class airport <i>primary</i> runway less than 2,000' in length. 2. Regional Class airport runway length is 500 feet or more below standards for the most demanding aircraft currently operating at the airport with a minimum of 250 annual operations, based on a master plan or other substantial documentation. 3. Paved runway, apron or taxiway surface in very poor or failed condition, with a PCI below 40 4. Gravel runway, apron or taxiway that is in failed condition or is closed portions of the year due to failure. 5. Runway safety area is 80% or more below standards (20% or less of standard). 6. Severe wildlife hazard intrusions, with documentation where available. 7. Severe airport safety deficiency with a documented accident history. 8. Obstruction that creates a severe hazard to aircraft operations. 9. Severe problem with intrusions on the operational surfaces. 10. Airport electrical system creates a hazard to personnel and operations. 11. Cross wind runway development if the primary runway has 80% or less coverage with 10.5 knots or more of wind velocity. 12. Cross wind runway development provides an additional 15% or greater wind coverage (i.e. wind rose coverage for primary runway was 82%; with this cross wind runway development or improvement, wind rose coverage becomes 97% or greater), based upon the 10.5 knot cross wind velocity. 13. Apron or seaplane dock / float is congested 75% or more of the time to the extent a safety problem is created. 14. Apron or seaplane base/float condition presents an eminent hazard to users. 15. A project that is judged to be a CRITICAL safety improvement for the operation of Regional classification airports that are both certified and have over 10,000 annual enplanements (primary classification).
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4	<ol style="list-style-type: none"> 1. Community Class airport primary runway is 2,000' to 2,499' feet in length. 2. Regional Class airport runway length is 400' to 499' below standards for the most demanding aircraft currently operating at the airport with a minimum of 250 annual operations, based on a master plan or other substantial documentation. 3. Paved runway, apron or taxiway surface in very poor condition with a PCI of 40 to 49. 4. Gravel runway, apron or taxiway in very poor condition. 5. Designated runway safety area 60% to 79% below standards (21% to 40% of standard). 6. Serious wildlife hazard intrusions, with documentation where available. 7. Serious airport safety deficiency without a documented accident history. 8. Obstruction that creates a serious hazard to aircraft operations. 9. Serious problem with intrusion on the operational surfaces. 10. Airport lighting system non-existent or inoperable. 11. Crosswind runway development if the primary runway has 81% to 85% coverage with 10.5 knots or more of wind velocity. 12. Cross wind runway development provides 12% to less than 15% additional wind coverage, based upon the 10.5 knot cross wind velocity. 13. Apron or seaplane dock/float is congested 50% or more of the time to the extent a safety problem is created. 14. Apron or seaplane dock/float condition presents a significant hazard to users. 15. A runway project which is judged to be a HIGH priority safety improvement for the operation of Regional classification airports that are both certified and have over 10,000 annual enplanements (primary classification).
3	<ol style="list-style-type: none"> 1. Community Class airport runway is 2,500' to 2,999' feet in length. 2. Community Class airport runway length is more than 500' below standards for the most demanding aircraft currently operating at the airport with a minimum of 250 annual operations, based on a master plan or other substantial documentation. 3. Regional Class airport runway length is 300' to 399' below standards for the most demanding aircraft currently operating at the airport with a minimum of 250 annual operations, based on a master plan or other substantial documentation. 4. Paved runway, apron or taxiway with a PCI score of 50 to 59. 5. Gravel runway, apron or taxiway in poor condition. 6. Designated runway safety area 40% to 59% below standards (41-60% of standards) 7. Moderate wildlife hazard intrusions, with documentation where available. 8. Moderate airport or seaplane float/base safety deficiency. 9. Obstruction that creates a moderate hazard to aircraft operations. 10. Moderate problem with intrusion on the operational surfaces. 11. Airport lighting system not reliable and over 20 years old. 12. Crosswind runway development if the primary runway has 86%-89% coverage with 10.5 knots or more of wind velocity. 13. Apron or seaplane base/float is congested 25% or more of the time to the extent a safety problem is created. 14. Cross wind runway development provides 9% to less than 12% of additional wind coverage, based upon the 10.5 knot cross wind velocity. 15. Apron or seaplane base/float condition presents a moderate hazard to users.

	16. A runway project which is judged to be a MODERATE priority safety improvement for the operation of Regional classification airports that are both certified and have over 10,000 annual enplanements (primary classification).
2	<ol style="list-style-type: none"> 1. Community Class airport primary runway length is 499' to 300' below standards for the most demanding aircraft currently operating at the airport with a minimum of 250 annual operations, based on a master plan or other substantial documentation. 2. Regional Class airport runway length is 200' to 299' below standards for the most demanding aircraft currently operating at the airport with a minimum of 250 operations annually, based on a master plan or other substantial documentation. 3. Paved runway surface in fair condition with a PCI of 50 to 55. 4. Gravel runway, apron or taxiway in fair condition. 5. Paved runway, apron or taxiway with PCI scores of 60 to 65. 6. Designated runway safety area 20% to 39% below standards (61-80% of standards) 7. Minor wildlife hazard intrusions, with documentation where available. 8. Minor airport or seaplane float/base safety deficiency. 9. Obstruction that creates a minor hazard to aircraft operations. 10. Minor problem with intrusion on the operational surfaces. 11. Airport lighting system not reliable. 12. Apron or seaplane dock/float is congested occasionally to the extent a safety problem is created. 13. Cross wind runway development provides 7% to less than 9% additional wind coverage, based upon the 10.5 knot cross wind velocity. 14. Apron or seaplane dock/float condition presents a minor hazard to users.
1	<ol style="list-style-type: none"> 1. Community Class airport primary runway 3,000' to 3,200' feet in length. 2. Regional Class airport runway length is 50' to 299' below standards for the most demanding aircraft currently operating at the airport with a minimum of 250 annual operations, based on a master plan or other substantial documentation. 3. Paved runway, apron or taxiway surface in fair condition with a PCI of 66 to 70. 4. Gravel runway, taxiway or apron in fair condition. 5. Designated runway safety area 10% to 19% below standards (81-90% of standards) 6. Minor wildlife hazard intrusions, with documentation where available. 7. Minor airport or seaplane float/base safety deficiency. 8. Crosswind runway development if the primary runway has 90%-95% coverage with 10.5 knots or more of wind velocity. 9. Cross wind runway development provides 5% to less than 7% additional wind coverage, based upon the 10.5 knot cross wind velocity. 10. A runway project which is judged to be a LOW priority safety improvement for the operation of Regional classification airports that are both certified and have over 10,000 annual enplanements (primary classification).
0	Project does not specifically improve airport safety.

Criteria # 2: Health & Quality of Life (Access to Basic Necessities)

The project will address the following factors:

**Raw
Score**

Criteria Guidance

5	<ol style="list-style-type: none">1. Provides an airport or seaplane facility to an established community with a state sponsored school currently without an airport and not connected to the contiguous road system or access to another airport.2. Improves a Community Class airport without all season access to the contiguous road system that currently experiences seasonal closure to all year capability.3. Installs runway lighting at a Community class airport without lighting.4. Extends a Community Class runway with a current length of less than 2,500' serving a community that does not have all season access to the contiguous road system.5. Improves the runway surface at airports where it is hazardous for current aircraft operations.6. Expands an apron or seaplane float to accommodate aircraft currently using an airport or seaplane base that is experiencing apron congestion 75% of the time or more.7. For cross wind runway projects at airports with primary runway wind rose coverage of 70% or less at a wind velocity of 10.5 knots and a population of 500 or more residents or 4,500 or more annual enplanements.8. Provides ADA compliant access to a facility that serves as the only airport reasonably accessible to a community where the ADA access limitation is judged to be severe.
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3	<ol style="list-style-type: none"> 1. Expands an apron or seaplane float to accommodate aircraft currently using an airport or seaplane base that is experiencing apron congestion 50% of the time or more. 2. Expands lease lot area at an airport with no current vacant lease lots and demonstrated demand for additional lease lot area. 3. Extends a Community Class airport runway with a current length of 2,500' to 2,999' that does not have all season access to the contiguous road system. 4. Improves a Community Class airport with 4,000 or greater enplanements to accommodate heavy cargo aircraft use for communities with no all season access to the contiguous road system or to a Regional class airport. 5. For cross wind runway projects at airports with primary runway wind rose coverage of 85% or less at a wind velocity of 10.5 knots and a population of 300 or more residents or 3,500 or more annual enplanements. 6. Provides ADA compliant access to a facility that serves as the only airport reasonably accessible to a community where the ADA access limitation is judged to be moderate.
1	<ol style="list-style-type: none"> 1. Extends a Community Class airport runway with a current length of between 3,000' and 3,200' that does not have all season access to the contiguous road system to meet the state standard of 3,300. 2. Expands an apron or seaplane float to accommodate aircraft currently using an airport or seaplane base that is experiencing apron congestion 25% of the time or more. 3. For cross wind runway projects at airports with primary runway wind rose coverage of 90% or less at a wind velocity of 10.5 knots and a population of 250 or more residents or 2,500 or more annual enplanements. 4. For cross wind runway projects at airports with primary runway wind rose coverage of less than 95% at a wind velocity of 10.5 knots and a population of 500 or more residents or 4,500 or more annual enplanements.
0	No significant affect on a community's access to basic necessities.

Criteria 3: Economic Benefits

The project will provide the following economic benefits:

RUNWAY IMPROVEMENTS

**Raw
Score**

Criteria Guidance

5	<p>1. Expansion or strengthening of the runway to allow aircraft larger than A-II* or B-II* design group to occasionally access a community of 500 people or more which has a demonstrated need for this capacity but does not currently have this capability and which has no other means of all year access; or</p> <p>2. Runway improvements that provide all season access to a community of 300 or more people where the existing airport is closed a portion of the year (such as breakup conditions)</p> <p>3. For cross wind runway projects at airports with primary runway wind rose coverage of 70% or less at a wind velocity of 10.5 knots and a population of 500 or more residents or 4,500 or more annual enplanements.</p>
4	<p>1. Expansion or strengthening of the runway to allow aircraft larger A-II* or B-II* design group to occasionally access a community of 400 to 500 people which has a demonstrated need for this capacity but which does not currently have this capability and which has no other means is of all year access; or</p> <p>2. Runway improvements that provide all season access to a community of 200 to 300 people where the existing airport is closed a portion of the year (such as breakup conditions).</p> <p>3. For cross wind runway projects at airports with primary runway wind rose coverage of 80% or less at a wind velocity of 10.5 knots and a population of 400 or more residents or 4,000 or more annual enplanements.</p> <p>4. A project that is judged to provide HIGH economic benefits for the operation of certified Regional classification airports with over 10,000 annual enplanements (primary classification).</p>

3	<p>1. Expansion or strengthening of the runway to allow aircraft larger than A-II* or B-II* design group to occasionally access a community of 300 to 400 people which has a demonstrated need for this capacity but which does not currently have this capability and which has no other means of all year access; or</p> <p>2. Runway improvements that provide all season access to a community of 100 to 200 people where the existing airport is closed a portion of the year (such as breakup conditions).</p> <p>3. For cross wind runway projects at airports with primary runway wind rose coverage of 85% or less at a wind velocity of 10.5 knots and a population of 300 or more residents or 3,500 or more annual enplanements.</p>
1-2	<p>1. Expansion or strengthening of the runway to allow aircraft larger than A-II* or B-II* design group to occasionally access a community of 200 to 300 people which has a demonstrated need for this capacity but which does not currently have this capability and which has no other means of all year access; or</p> <p>2. Runway improvements that provide all season access to a community of up to 100 people where the existing airport is closed a portion of the year (such as breakup conditions).</p> <p>3. For cross wind runway projects at airports with primary runway wind rose coverage of 90% or less at a wind velocity of 10.5 knots and a population of 250 or more residents or 2,500 or more annual enplanements.</p>
*	<p>Examples of aircraft larger than A-II or B-II design group are the Convair 580, DC - 4, DC- 6, Dash - 8, Fairchild F-27, Fokker F-27, Boeing 727, Boeing 737, Lockheed 188 Electra, Lockheed Hercules. For any Community Class airport project evaluated under this criteria where the FAA requires higher than A-II or B-II aircraft design standards, but where the required design standard was not specified in the original project information sheet submitted for APEB evaluation, the project must be resubmitted to APEB as a replacement project for reevaluation specifying the required design group standards.</p>

Criteria 3: Economic Benefits (Continued)

APRON, SEA PLANE DOCK/FLOAT AND / OR LEASE LOT IMPROVEMENTS

**Raw
Score**

Criteria Guidance

5	<ol style="list-style-type: none"> 1. Expands lease lots at a Regional Class airport that has no vacant airside accessible lease lots and has a waiting list for lease lots. 2. Expands heavy aircraft apron serving B-III or heavier aircraft ** at a Regional airport that is currently experiencing severe congestion. 3. Expansion of a seaplane dock/float which is not adequately sized to allow use by the largest aircraft serving the community or which is experiencing severe congestion 75% or more of the time.
4	<ol style="list-style-type: none"> 1. Expands lease lots at a Regional Class airport that has minimal vacant airside accessible lease lots and has a documented projected need for such property within 2 years. 2. Expands lease lots at a Community Class airport that has no vacant airside accessible lease lots and has a waiting list for such property. 3. Expands the heavy aircraft apron serving B-III or heavier aircraft ** at a Regional Class airport that is currently experiencing sustained congestion. 4. Expands aircraft apron at any airport or seaplane float at any seaplane base that is currently experiencing severe congestion. 5. Expansion of a seaplane dock/float that is not adequately sized to allow use by the aircraft currently serving the community the community to the extent severe congestion is created 50% or more of the time.
3	<ol style="list-style-type: none"> 1. Expands lease lots at a Regional Class airport that has minimal vacant airside accessible lease lots and has a documented projected need for such property within 5 years. 2. Expands lease lots at a Community Class airport that has no vacant lease lots but has a documented need within 2 years for additional lease lots. 3. Expands heavy aircraft apron at a Regional Class airport that is currently experiencing moderate congestion. 4. Expands aircraft apron at any airport or seaplane float at any seaplane base that is currently experiencing sustained congestion that affects the economy of the airport or community to a significant degree. 5. Expansion of a seaplane dock/float that is not adequately sized to allow use by the aircraft currently serving the community the community to the extent severe congestion is created 25% or more of the time.

1-2	<ol style="list-style-type: none"> 1. Expands lease lots at a Regional Class airport that has minimal vacant lease lots and has a documented projected need for such property within 10 years. 2. Expands lease lots at a Community Class airport that has inadequate lease lots to meet a documented need within 5 years. 3. Expands aircraft apron at any airport or seaplane float at any seaplane base that is currently experiencing occasional congestion that affects the economy of the airport or community to a significant degree.
**	<p>Examples: Convair 580, DC 4, DC 6, Fairchild F-27, Fokker F-27, Boeing 727, Boeing 737, Lockheed 188 Electra, Lockheed Hercules</p>

Criteria 3: Economic Benefits (Continued)

TAXIWAY IMPROVEMENTS

Raw
Score

Criteria Guidance

5	<p>Provides taxiway access to an undeveloped lease area at a Regional Class airport where there is no vacant property for lease and a documented demand of additional lease lots currently exists.</p>
4	<ol style="list-style-type: none"> 1. Provides taxiway access to undeveloped lease area property at a Regional Class airport where there is minimal available vacant property for lease and there is a documented need for additional lease area property within 2 years. 2. Provides taxiway access to an undeveloped lease area at a Community Class airport where there is no vacant property for lease and a documented demand of additional lease lots currently exists.
3	<ol style="list-style-type: none"> 1. Provides taxiway access to undeveloped lease area property at a Regional Class airport where there is minimal available vacant property for lease and there is a documented need for additional lease area property within 3 years. 2. Provides taxiway access to undeveloped lease area property at a Community Class airport where there is minimal available vacant property for lease and there is a documented need for additional lease area property within 2 years.
1-2	<ol style="list-style-type: none"> 1. Provides taxiway access to undeveloped lease area property at a Regional Class airport that has minimal available vacant property for lease and there is a documented need for additional lease area property within 4 years. 2. Provides taxiway access to undeveloped lease area property at a Community Class airport where there is minimal available vacant property for lease and there is a documented need for additional lease area property within 3 years.

Criteria 3: Economic Benefits (Continued)

ECONOMIC BENEFIT DOCUMENTATION

Raw
Score

Criteria Guidance

5	Improvements that address the findings of a formal study, which indicate sustainable economic benefits would occur due to the proposed improvements. The Benefit/Cost ratio should be 1.5 or greater or other documented analysis demonstrates the benefits greatly exceed the costs of the project.
4	Improvements that address the findings of a formal study that indicates moderate economic benefits would occur due to the proposed improvements. The Benefit/Cost ratio should be 1.2 or greater or other documented analysis demonstrates the benefits moderately exceed the costs of the project.
3	Improvements where the Region believes that high economic benefits would occur due to the proposed improvements, but where no formal study supports this conclusion.
1-2	Improvements where the Region believes moderate economic benefits will occur due to the proposed improvements, but where no formal study supports this conclusion.

Criteria 7: Maintenance & Operations

Raw
Score

Criteria Guidance

5	<p>1. Project is needed to maintain and operate the airport or seaplane base in a safe manner. *</p> <p>2. Project significantly reduces, or prevents a significant increase in, M&O costs. *</p> <p>3. Project provides a critical increase in M & O efficiency for airport operations. *</p> <p>* Under Items 1-3 above, a Local Sponsor's M&O concerns are considered in the same manner as if their airport were a state airport.</p>
3	<p>1. Project will improve the safety of airport or seaplane base maintenance and operations. *</p> <p>2. Project moderately reduces, or prevents a moderate increase in, M&O costs. *</p> <p>3. Project provides a moderate increase in M & O efficiency for airport operations. *</p> <p>* Under Items 1-3 above, a Local Sponsor's M&O concerns are considered in the same manner as if their airport were a state airport.</p>
0	<p>Project will have no significant impact on the sponsors M&O costs or the ability to operate the airport or seaplane base in a safe and efficient manner.</p>

Criteria #9: Aviation Alternatives

Raw
Score

Criteria Guidance

0	<p>No access to other public aviation facilities or where other public aviation facilities are more than 50 miles distance by maintained road.</p>
-3	<p>Another public airport is between 30 and 49 miles distance by maintained road.</p>
-5	<p>Another public airport is less than 30 miles distance by maintained road.</p>

Criteria #11: Runway Length Extension or Development to Meet Community Class Airport Primary Runway Length Minimum Standards of 3,300' or Cross Wind Runway Development Standards

Raw
Score

Criteria Guidance

5	<p>1. Project extends an existing Community Class primary runway that is currently less than 2,000' in length. *</p> <p>2. Project constructs or extends an existing Regional or Community Class cross wind runway that is 1,600' or less or less than 50% of the primary runway in length and where the wind rose coverage on the primary runway is 80% or less. *</p>
4	<p>1. Project extends an existing Community Class primary runway that is currently 2,000' to 2,499' in length. *</p> <p>2. Project constructs or extends an existing Regional or Community Class cross wind runway that is 2,000' or less or less than 60% of the primary runway in length and where the wind rose coverage on the primary runway is 85% or less. *</p>
3	<p>1. Project extends an existing Community Class primary runway that is currently 2,500' to 2,999' in length. *</p> <p>2. Project constructs or extends an existing Regional or Community Class cross wind runway that is 2,400' or less or less than 70% of the primary runway in length and where the wind rose coverage on the primary runway is 90% or less. *</p>
1-2	<p>Project does NOT extend the runway, but if the runway is currently less 3,000', the project will receive 1 point for each of the following, if they are included in the work scope:</p> <ul style="list-style-type: none"> • installs runway edge lighting • resurfaces the runway
1	<p>1. Project extends an existing Community Class primary runway that is currently less than 3,200' to the 3,300' statewide standard. *</p> <p>2. Project constructs or extends an existing Community Class cross wind runway that is 2,500' or less or less than 78% of the primary runway in length and where the wind rose coverage on the primary runway is 93% or less. *</p>

0	Existing runway is 3,200' or greater.
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* For airport relocation project evaluations, the runway lengths evaluated will be the existing airport runway lengths on the airport proposed for relocation.

Criteria # 12: Runway Surface Condition

Raw
Score

Criteria Guidance

5	Improves runways with a very poor/failing surface condition; paved runway has a PCI of less than 35.
4	Improves runway with a surface in poor condition; paved runway has a PCI between 35 and 49.
3	Improves runway with a surface in fair condition; paved runway has a PCI between 50 and 60.
0	Runway surface condition is good; paved runway has a PCI above 60.

Criteria # 13: Avigation Hazards

Avigation is the navigation of airplanes and avigation hazards have been defined by APEB as referring only to hazards that effect aircraft in flight. The types of avigation hazards are highly varied and can consist of Part 77 imaginary slope penetrations, wildlife hazards, severe cross winds particularly in cases of high cross wind gust spreads, runway incursions by unauthorized people or vehicles and turbulence. The degree of potential hazard from avigation hazards is much higher during nighttime or IFR operations, when the pilot has reduced visibility in order to help avoid or mitigate the hazard. The following additional factors should be considered when evaluating the importance of a project in association with a given avigation hazard:

1. The relative significance of the hazard.
2. The extent to which the project can correct or mitigate the hazard.

3. The number of nighttime and IFR operations at the airport.
4. The total annual number of operations and enplanements at an airport.
5. The number of persons in the community served by the airport.
6. The potential number of passengers on the aircraft, which may be affected by an identified hazard.

Points should not be awarded under the Avigation Hazard criteria to a project that does not correct or mitigate an identified avigation hazard.

**Raw
Score**

Criteria Guidance

5	<p>Project corrects a documented significant avigation hazard at a Part 139 certificated airport served by aircraft with over 30 seats.</p> <p>Examples of "Significant" avigation hazards</p> <ul style="list-style-type: none"> • Obstructions to the Primary or Approach surfaces. • Crosswind coverage of less than 85%, based on the 10.5 knot cross wind velocity. • A documented bird strike problem, based on actual bird strikes or a wildlife hazard assessment identifying a significant wildlife hazard. • Numerous documented runway incursions by humans or large mammals.
4	<ol style="list-style-type: none"> 1. Project corrects a documented significant avigation hazard for use of any airport that is not served by aircraft with over 30 seats. 2. Project reduces but does not completely correct a documented significant avigation hazard at a Part 139 airport served by aircraft with over 30 seats.

3	<p>Project corrects a moderate avigation hazard for use of any airport.</p> <p>Examples of "Moderate" avigation hazards</p> <ul style="list-style-type: none"> • Obstructions to Transitional or Horizontal surfaces • Moderate wildlife or human incursions on airport operating areas, such as the runway, apron or taxiway. • A perceived substantial bird strike hazard without bird strike documentation or a wildlife hazard assessment documenting a moderate hazard. • Crosswind coverage less than 90% on the primary runway, based on the 10.5 knot cross wind velocity.
2	<p>1. Project reduces but does not completely correct a moderate avigation hazard for use of any airport.</p> <p>2. Project corrects a minor avigation hazard for use of any airport.</p> <p>Examples of "Minor" avigation hazards</p> <ul style="list-style-type: none"> • Occasional wildlife or human incursions in operating areas, such as the runway, apron or taxiway. • A perceived minor bird strike hazard with bird strike documentation or a wildlife hazard assessment documenting a minor hazard. • Crosswind coverage less than 95% on the primary runway, based on the 10.5 knot cross wind velocity.
1	<p>Project may mitigate an identified avigation hazard for use of any airport.</p>
0	<p>Project does not mitigate an identified avigation hazard.</p>