Ramp Error Decision Aid (REDA) Results Form

<table>
<thead>
<tr>
<th>Section I – General Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reference #: ____________________</td>
</tr>
<tr>
<td>Airline: ________________________</td>
</tr>
<tr>
<td>Station of Error: ______________</td>
</tr>
<tr>
<td>Aircraft Type/Reg. #: ___________</td>
</tr>
<tr>
<td>Equipment Type: ________________</td>
</tr>
<tr>
<td>Ref. # of previous related event: __________</td>
</tr>
</tbody>
</table>

| Date of Investigation: __ __ / __ __ / __ __ |
| Date of Event: __ __ / __ __ / __ __ |
| Time of Event: __ : __ am pm |
| Shift of Event: ______________ |
| Date Changes Implemented: __ __ / __ __ / __ __ |

<table>
<thead>
<tr>
<th>Section II – Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please select the event (check all that apply)</td>
</tr>
</tbody>
</table>

1. Aircraft Damage Event
   - a. Cargo door
   - b. Passenger door
   - c. Tail
   - d. Nose/radome
   - e. Wing/flaps/slats/aileron
   - f. Engine/cowl
   - g. Landing gear/doors
   - h. Antenna/masts
   - i. Other (explain below)

2. Equipment Damage Event
   - a. Bag tug/cart
   - b. Loading bridge/(jetbridge)
   - c. Belt Loader
   - d. Container loader
   - e. Trucks (lav/fueling/water/etc.)
   - f. Other (explain below)

3. Operational Process Event
   - a. Flight delay
   - b. Flight cancellation
   - c. Ground interrupt/gate return/ rejected takeoff
   - d. Air Interrupt (return to field/diversion)
   - e. Other (explain below)

4. Personal Injury Event
   - a. Strain
   - b. Sprain
   - c. Laceration
   - d. Contusion
   - e. Fracture
   - f. Other (explain below)

5. Environmental Impact Event
   - a. Spill
   - b. Release
   - c. Contamination
   - d. Other (explain below)

6. Weight & Balance/Cargo Event
   - a. Exceeded weight/Center of Gravity (CG) limits
   - b. Cargo shifted
   - c. Cargo release in aircraft
   - d. Live animals (death, escape, etc.)
   - e. Dangerous goods incorrectly shipped
   - f. Unit Load Device (ULD) failure/used unserviceable ULD
   - g. Technically unairworthy conditions (reported after takeoff, reported on Offload)
   - h. Spill in aircraft
   - i. Contamination of aircraft
   - j. Other (explain below)

7. Other Event (explain below)

Describe the specific ramp system failure.
# Section III – Ramp System Failure (errors, violation, others)

Please select the system failure (check all that apply)

<table>
<thead>
<tr>
<th>1. Equipment/Tools</th>
<th>2. Foreign Object Damage (FOD)</th>
<th>3. Aircraft Servicing</th>
</tr>
</thead>
<tbody>
<tr>
<td>( ) a. Driven/pushed/towed into</td>
<td>( ) a. Material left on ramp</td>
<td>( ) a. Servicing not performed</td>
</tr>
<tr>
<td>( ) b. Not for intended use</td>
<td>( ) b. Material dropped into open system</td>
<td>( ) b. Servicing not performed in required time</td>
</tr>
<tr>
<td>( ) c. Defective equipment</td>
<td>( ) c. Material left in aircraft/engine</td>
<td>( ) c. Not enough fluid</td>
</tr>
<tr>
<td>( ) d. Incorrectly operated</td>
<td>( ) d. Failure to see foreign objects on ramp</td>
<td>( ) d. Too much fluid</td>
</tr>
<tr>
<td>( ) e. Equipment left in wrong place</td>
<td>( ) e. Other (explain below)</td>
<td>( ) e. Wrong fluid type</td>
</tr>
<tr>
<td>( ) f. Signal/connectivity</td>
<td></td>
<td>( ) f. Access not closed</td>
</tr>
<tr>
<td>( ) g. Battery (e.g., electrical GSE)</td>
<td></td>
<td>( ) g. System/equipment not deactivated/reactivated</td>
</tr>
<tr>
<td>( ) h. Other (explain below)</td>
<td></td>
<td>( ) h. Other (explain below)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>( ) a. Driven into equipment/facility</td>
<td>( ) a. Pushed/towed into</td>
<td>( ) a. Maintenance not performed</td>
</tr>
<tr>
<td>( ) b. Driven off ramp/taxi way</td>
<td>( ) b. Pushed/towed off of</td>
<td>( ) b. Maintenance not performed in required time</td>
</tr>
<tr>
<td>( ) c. Other (explain below)</td>
<td>( ) c. Not pushed/towed</td>
<td>( ) c. Equipment/parts not installed</td>
</tr>
<tr>
<td></td>
<td>( ) d. Not pushed/towed in required time</td>
<td>( ) d. Wrong equipment/parts installed</td>
</tr>
<tr>
<td></td>
<td>( ) e. Marshalling</td>
<td>( ) e. Incomplete installation</td>
</tr>
<tr>
<td></td>
<td>( ) f. Other (explain below)</td>
<td>( ) f. Access not closed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( ) g. System/equipment not deactivated/reactivated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>( ) h. Other (explain below)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>( ) a. Did not detect fault</td>
<td>( ) a. Slip/trip/fall</td>
<td>( ) a. Cargo exceeded weight limit</td>
</tr>
<tr>
<td>( ) b. Not found by fault isolation</td>
<td>( ) b. Caught in/on/between</td>
<td>( ) b. Cargo loaded in an unbalanced manner</td>
</tr>
<tr>
<td>( ) c. Not found by operational / functional test</td>
<td>( ) c. Struck by/against</td>
<td>( ) c. Cargo (e.g., luggage) load/offload tracking error</td>
</tr>
<tr>
<td>( ) d. Not found by inspection</td>
<td>( ) d. Hazard contacted (e.g. electricity, hot or cold surfaces, and sharp surfaces)</td>
<td>( ) d. Incorrect data entries</td>
</tr>
<tr>
<td>( ) e. Access not closed</td>
<td>( ) e. Hazardous substance exposure (e.g. toxic or noxious substances)</td>
<td>( ) e. Delay in reporting error</td>
</tr>
<tr>
<td>( ) f. System/equipment not deactivated/reactivated</td>
<td>( ) f. Hazardous thermal environment exposure (heat, cold or humidity)</td>
<td>( ) f. Other (explain below)</td>
</tr>
<tr>
<td>( ) g. Other (explain below)</td>
<td>( ) g. Incorrect body position for manual handling</td>
<td></td>
</tr>
<tr>
<td></td>
<td>( ) h. Other (explain below)</td>
<td></td>
</tr>
</tbody>
</table>

10. Other (explain below)

Describe the specific ramp system failure.
### Section IV – Contributing Factors Checklist

#### A. Information (e.g., written procedure, load plan, alerts, HAZMAT paperwork, live animal paperwork)
- __1. Not understandable__
- __2. Unavailable/inaccessible__
- __3. Incorrect__
- __4. Too much/conflicting information__
- __5. Insufficient information__
- __6. Update process is too long/complicated__
- __7. Incorrectly modified manufacturer's MM/SB__
- __8. Information not used__
- __9. Inefficient procedure__
- __10. Uncontrolled__
- __11. Other (explain below)__

Describe specifically how the selected information factor(s) contributed to the failure.

#### B. Ground Support Equipment/Tools/Safety Equipment [Personal Protective Equipment (PPE) and Collective Protective Equipment (CPE)]
- __1. Defective/unserviceable__
- __2. Unsafe__
- __3. Unreliable__
- __4. Layout of controls or displays__
- __5. Not used__
- __6. Unavailable__
- __7. Inappropriate for the task__
- __8. Incorrectly used__
- __9. Cannot use in intended environment__
- __10. Incorrectly used in existing environment__
- __11. Too complicated__
- __12. Incorrectly labeled/marked__
- __13. Not labeled/marked__
- __14. PPE/CPE not used__
- __15. PPE/CPE used incorrectly__
- __16. PPE/CPE unavailable__
- __17. Out of calibration__
- __18. No instructions__
- __19. Inaccessible__
- __20. Past expiration date__
- __21. Other (explain below)__

Describe specifically how selected ground support ground support equipment/tools/safety equipment factor(s) contributed to the failure.

#### C. Aircraft Design/Configuration/Parts/Equipment/Consumables
- __1. Complex__
- __2. Unavailable/inaccessible__
- __3. Incorrect__
- __4. Too much/conflicting information__
- __5. Insufficient information__
- __6. Update process is too long/complicated__
- __7. Incorrectly modified manufacturer's MM/SB__
- __8. Information not used__
- __9. Inefficient procedure__
- __10. Uncontrolled__
- __11. Other (explain below)__

Describe specifically how the selected aircraft design/configuration/parts/equipment/consumables factor(s) contributed to failure.

#### D. Job/Task
- __1. Repetitive/monotonous__
- __2. Complex/confusing__
- __3. New task or task change__
- __4. Different from other similar tasks__
- __5. Requires forceful exertions__
- __6. Requires kneeling/ bending/ stooping__
- __7. Requires twisting__
- __8. Long duration__
- __9. Awkward position__
- __10. Other (explain below)__

Describe specifically how the selected job/task factor(s) contributed to the failure.
E. Knowledge/Skills

1. Technical skills
2. Task knowledge
3. Task planning
4. Airline process knowledge
5. Vendor process knowledge
6. Airport process knowledge
7. Aircraft system knowledge
8. Aircraft configuration knowledge
9. English language proficiency
10. Teamwork skills
11. Computing skills
12. Other (explain below)

Describe specifically how the selected knowledge/skills factor(s) contributed to the failure.

F. Individual Factors

1. Physical health (including hearing and sight)
2. Fatigue
3. Time pressure
4. Peer pressure
5. Complacency
6. Body size/strength
7. Personal event (e.g., family problem, car accident)
8. Task distractions/interruptions
9. Memory lapse (forgot)
10. Visual perception
11. Lack of Assertiveness
12. Stress
13. Situation awareness
14. Workload/task saturation
15. Other (explain below)

Describe specifically how the selected individual factors contributed to the failure.

G. Environment/Facilities/Ramp

1. High noise levels
2. Hot
3. Cold
4. Humidity
5. Rain
6. Snow
7. Wind
8. Lightning
9. Vibrations
10. Cleanliness
11. Hazardous/toxic substances
12. Power sources
13. Inadequate ventilation
14. Inadequate blast protection
15. Markings
16. Lighting
17. Labels/placards/signage
18. Confined space
19. Other (explain below)

Describe specifically how the selected environment/facilities/ramp factor(s) contributed to the failure.

H. Organizational Factors

1. Quality of support from technical Organizations (e.g., maintenance control, dispatch, ground control)
2. Qualify of support from airport vendors
3. Quality of support from airport organizations
4. Company policies
5. Not enough staff
6. Corporate change/restructuring
7. Union action
8. Work process/procedure
9. Work process/procedure not followed
10. Work process/procedure not documented (e.g., use tribal knowledge)
11. Work group normal practice (norm)
12. Failure to follow ground guidance
13. Failure to follow airport authority guidance
14. Team building
15. Other (explain below)

Describe specifically how the selected organizational factor(s) contributed to the failure.
## I. Leadership/Supervision
1. Planning/organization of tasks approved
2. Prioritization of work
3. Delegation/assignment of task approved
4. Unrealistic attitude/expectations
5. Does not assure that approved process/procedure is followed
6. Amount of supervision
7. Other (explain below)

Describe specifically how the selected leadership/ supervision factor(s) contributed to the failure.

## J. Communication
1. Between departments
2. Between staff
3. Between shifts
4. Between ramp staff and lead
5. Between lead and management
6. Between flight crew and ramp staff
7. Between airline and vendor
8. Between vendors
9. Between airline and airport
10. Other (explain below)

Describe specifically how the selected communication factor(s) contributed to the failure.

## K. Other Contributing Factors (explain below)
Describe specifically how this other contributing factor(s) contributed to the failure.

## Section V – Failure Prevention Strategies
A. What current existing procedures, processes, and/or policies in your organization are intended to prevent the incident, but didn’t?

  ( ) Ramp Operation Policies or Processes (e.g., Ground Operations Manual, specify) ___________________
  ( ) Maintenance Policies or Procedures (specify) ________________________________________________
  ( ) Inspection, Functional Check or Safety Check (specify) ______________________________________
  ( ) Required Maintenance Documentation ______________________________________________________
  ( ) Required Ramp Operation Documentation ____________________________________________________
  ( ) Supporting Documentation
    ( ) Training materials (specify) ________________________________________________________________
    ( ) All operator letters (specify) _______________________________________________________________
    ( ) Inter-company bulletins (specify) ____________________________________________________________
    ( ) Other (specify) ________________________________________________________________________

N/A _
N/A _
N/A _
### B. List recommendations for system failure prevention strategies.

<table>
<thead>
<tr>
<th>Recommendation #</th>
<th>Contributing Factor #</th>
<th>Recommendation</th>
</tr>
</thead>
</table>

(Use additional pages, as necessary)

### VI – Chronological Summary of the Event

Summarize the event, including how some Contributing Factors lead to additional Contributing Factors

(Use additional pages, as necessary)