

**AAR Manual of Standards and Recommended Practices
Intermodal Equipment Manual**

M-935

**STANDARD OPERATING PROCEDURES FOR INTERMODAL
SECUREMENT**

M-935

Effective: 1998; Revised: 2017

1.0 PURPOSE

The purpose of this document is to contribute to the safety of rail personnel/equipment and of affected communities by establishing uniform standards for intermodal unit securement to railcars.

2.0 SCOPE

2.1 This document became effective August 1, 1998.

2.2 This document applies to definitions and standards for securement practices, inspections, failures, reporting, training, and corrective action applicable to rail intermodal personnel at intermodal terminals (including private terminals) and port facilities.

3.0 DEFINITIONS (PAGE 1 OF 3)

Term	Definition
Container	Unit moving COFC (without wheels) using container-locking devices as securement onto railcar.
IBC (approved)	Semiautomatic interbox connectors used for securing stacked containers to each other on certain double-stack cars. Manual interbox connectors used for securing stacked containers to each other on certain double-stack cars and that are locked by fully moving the locking handle to the left position. Note: To be approved for rail use, manual IBCs must indicate locked in the left position, and all IBCs must be listed in the intermodal approved equipment at AAR.com.
Inspections	<p>Post-Loading/Pre-Departure</p> <p>Independent visual inspection by a securement verifier that all units are properly secured to cars and to other containers if double-stacked.</p> <p>Unloading</p> <p>Visual examination for proper securement by securement verifier of units on railcars before units are lifted off of railcar.</p> <p>Port Loading</p> <p>Visual inspection of same elements as required by post-loading/pre-departure and unloading inspections for port facilities handling intermodal traffic.</p> <p>Private Facility Loading</p> <p>Visual inspection of same elements as required by post-loading/pre-departure and unloading inspections for private intermodal facilities.</p>
Lift crew	Groundperson and/or operator function performed relative to loading/unloading a train.
Lift equipment	Equipment used to load or unload a container from a railcar.

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3.0 DEFINITIONS (PAGE 2 OF 3)

Term	Definition
Securement defect	<p>An equipment condition or problem that prevents proper securement of a trailer or container to an intermodal railcar, or that poses a risk that proper securement may be compromised.</p> <ol style="list-style-type: none"> 1. Trailer Hitches <ol style="list-style-type: none"> A. Top Plates <ol style="list-style-type: none"> i. Cracked, broken, or missing ii. Locking mechanism inoperative, broken, or missing iii. Auxiliary lock inoperative, broken, or missing B. Struts <ol style="list-style-type: none"> i. Cracked, broken, or missing ii. Pins/retainers broken or missing iii. Diagonal strut lock hook or lock inoperative, broken, or missing iv. Diagonal strut pivot mount cracked or broken C. Miscellaneous <ol style="list-style-type: none"> i. Hold-down hooks broken or missing ii. Elevating screw inoperative, broken, or missing iii. Elevating screw nut inoperative, broken, or missing 2. Interbox Connectors <ol style="list-style-type: none"> A. Cone broken or missing B. Locking handle inoperative, missing, or broken 3. Container Pedestals <ol style="list-style-type: none"> A. Pedestal latch broken, missing, out of vertical orientation B. Latch compresses into the lock housing by hand C. Twist-lock cracked, broken, missing, or can be turned by hand more than 45° D. Pedestal housing cracked, broken, or missing 4. Flatcar Rub-Rails <ol style="list-style-type: none"> A. Broken or missing at tandem 5. Chassis (When Loaded on Flatcars) <ol style="list-style-type: none"> A. Chassis twist-lock inoperative, broken, or missing B. Frame cracked or broken
Securement failure	<p>Improper securement of a unit to a railcar discovered after the post-loading/pre-departure inspection and sign-off. Each unit improperly secured, regardless if on one train, constitutes a failure.</p>
Securement failure— AAR reportable	<p>A securement failure (as defined above) that results in a unit falling off a car or striking another object is reportable to the AAR.</p>

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**AAR Manual of Standards and Recommended Practices
Intermodal Equipment Manual**

M-935

3.0 DEFINITIONS (PAGE 3 OF 3)

Term	Definition
Securement failure— FRA reportable	A securement failure (as defined above) that results in damages to on-track equipment, signals, track, track structures, and/or roadbed of \$10,500 or more (threshold adjusted periodically) must be reported to the Federal Railroad Administration and the AAR.
Securement verifier	Any individual who has been trained and qualified to perform an inspection that units are properly secured to railcars.
Trailer	Unit moving TOFC (with wheels) using a hitch as securement onto a railcar.
Unit	Trailer, container, container-on-chassis, or chassis.

4.0 STANDARDS

4.1 Securement Audits

4.1.1 Frequency

Securement audits will be conducted by rail management at the following intervals using the industry standard securement audit form, to ensure compliance with industry securement standard operating procedures.

4.1.1.1 Terminals with 60,000 or less annual lift count: one audit per year

4.1.1.2 Terminals with 60,001 through 350,000 annual lift count: two audits per year

4.1.1.3 Terminals with 350,001 and higher annual lift count: four audits per year

4.1.2 Extent

Each audit must include inspection of a reasonable number of cars as appropriate to the operation.

4.1.3 Timing

Audits shall be performed after the post-loading/pre-departure inspection.

4.1.4 Form

See Fig. 4.1.

4.2 Loading Practices Impacting Securement

4.2.1 Inoperative or Defective Securement Devices

Securement devices found inoperative or defective during positioning of securement devices for loading or during the loading process must be dealt with in the following manner:

4.2.1.1 No alternative loading is allowed unless a positive lock-out device is applied, provided the positive lock-out device does not prevent proper loading (positioning and clearance) and securement of a unit to the alternative securement device.

4.2.1.2 A car must be bad ordered if no positive lock-out device is available. (See the definition for *Securement defect*, items 1, 3, and 4, for conditions that would result in locking out a securement device or bad ordering a car.)

4.2.2 Reverse movement is required for TOFC loading on cars with semiautomatic hitches.

4.2.3 Snow or ice must be removed if it prevents proper securement.

4.2.4 Debris must be removed from railcar wells or surfaces.

4.2.5 Container pedestals not in use must be lowered/recessed if they obstruct TOFC loading (cover plates dropped, if applicable).

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4.2.6 Before lifting container-with-chassis, a visual inspection is required to ensure all chassis-to-container locks are properly secured.

4.2.7 All chains and binders on flatbeds/racks must be properly secured and stowed.

4.2.8 Trailers must be locked in position on hitches before a lift crew moves to the next railcar.

4.3 Post-Loading/Pre-Departure Visual Inspection Requirements

4.3.1 An independent inspection must be performed by a securement verifier.

4.3.2 A method must be employed for post-loading/pre-departure inspections:

- Acceptable vantage points must be located for inspecting securement.
- Supplemental lighting must be used when lighting or visibility is not adequate.

4.3.3 A final track sheet must be signed off or logged electronically. A stamp or message must clearly outline what someone is attesting to.

4.3.4 Securement verification sign-offs must be retained 30 days.

4.4 Visual Inspections of Unloading

4.4.1 An unloading inspection must be performed by a securement verifier.

4.4.2 Methods must be employed for unloading inspections:

- Acceptable vantage points must be located for inspecting securement.
- Supplemental lighting must be used when lighting or visibility is not adequate.

4.5 Post-Loading/Pre-Departure and Unloading Inspection Defects Impacting Securement

4.5.1 Trailers

4.5.1.1 Hitch jaw or rotor is not locked.

4.5.1.2 Hitch diagonal strut is not locked.

4.5.1.3 Trailer kingpin is not properly engaged in jaw or rotor assembly.

4.5.1.4 Trailer tires are not properly positioned (overriding rub-rail/raised side sill; are resting on a container pedestal; are not completely supported by railcar deck).

4.5.1.5 Trailer tire is missing or flat.

4.5.1.6 Trailer landing gear is not properly clear of deck.

4.5.1.7 Unit shifted or is leaning in or on railcar.

4.5.1.8 Trailer doors are not closed.

4.5.2 Containers

4.5.2.1 Container pedestal latch or twist-lock is unlocked.

4.5.2.2 Bulkhead railcar flipper guides are not in proper position for top container.

4.5.2.3 Railcar container width guides are improperly positioned.

4.5.2.4 IBC is improperly positioned (upside down; installed with no top container).

4.5.2.5 IBC is missing.

4.5.2.6 IBC is not locked.

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**AAR Manual of Standards and Recommended Practices
Intermodal Equipment Manual**

M-935

4.5.2.7 IBC is improperly stowed.

4.5.2.8 IBC is an improper type.

4.5.2.9 IBC locking handle is inoperative, missing, or broken.

4.5.2.10 Container is contacting a partially collapsed hitch or rub-rail in such a way that it prevents proper securement.

4.5.2.11 Container handling fitting is improperly engaged on the securement device.

4.5.2.12 Container handling fitting is broken or bent so as to prevent proper securement.

4.5.2.13 Container-to-chassis securement devices are not locked and secured.

4.5.2.14 A 20-ft container is loaded in a well not approved for 20-ft loading.

4.5.2.15 Container doors are not closed.

4.5.3 Flatbed/Rack Chains and Binders

Flatbed/rack chains and/or binders are not properly secured and stowed.

4.5.4 Double-Stack Well Cars

There is debris or foreign material in the well.

4.6 Handling Securement Failures

4.6.1 Operational Procedures

4.6.1.1 For failures of any of the elements above, determine if the condition resulted from an actual securement failure or from some other cause, such as a mechanical failure or vandalism.

4.6.1.2 Any securement failure must be corrected before train departure.

4.6.1.3 Units determined to be a securement failure upon arrival should not be unloaded until inspected and documented/photographed.

4.6.2 Reporting Procedures Following Discovery of a Securement Failure

4.6.2.1 Reporting shall be made within 24 hours of the detection of a securement failure via fax, electronic mail, or other electronic method to the individual(s) designated within the company.

4.6.2.2 A standard industry form for internal reporting shall be used to ensure standard collection of information. See Fig. 4.2.

4.6.2.3 The same industry form shall be used for reporting securement failures to the previous carrier when interchanged.

4.6.2.4 In addition, the AAR Incident Reporting form shall be used for reporting those securement failures that result in a unit falling off the railcar or hitting another train/object en route, or for securement failures resulting in at least \$10,500 of damages (threshold adjusted periodically). See Fig. 4.3.

4.6.3 Tracking Securement Failures

Each rail carrier shall maintain a database of its own securement failures for a minimum of 1 year.

4.7 Securement Failure Corrective Action

4.7.1 Securement failure corrective action applies to the lift crew and the securement verifier involved.

4.7.2 Retraining and requalification with a securement verifier is required before resuming securement verification duties.

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4.8 Training Criteria for Securement and Inspection

4.8.1 Personnel

All personnel involved in a) the inspection of securement devices and appliances; b) the intermodal loading process; or c) securement inspections, whether railroad or contract personnel, must receive training in proper loading and securement practices and procedures before performing securement activities.

4.8.2 Training

The education of personnel will include training regarding proper application of typical securement devices currently in use in the intermodal industry. Training also will include identification of visible defects of securement devices.

4.8.3 Standards

Personnel will be trained and qualified to comply with the securement procedures specified in this document.

4.8.4 Reference Material and Training Aids

The following materials, or the information contained therein, must be incorporated into the training program:

- *AAR Intermodal Trailer and Container Securement Manual*
- *AAR Intermodal Trailer Loading and Securement Video*
- *AAR Intermodal Container Loading and Securement Video*
- *AAR Trailer Hitch Information Poster*
- *AAR Container Securement Information Poster*

Additional material may be added to these requirements as is deemed appropriate.

4.8.5 Training Records

Training and associated certification will be performed by and recorded with either the railroad or the contractor, at the option of the railroad. Related records will be kept at or able to be accessed from the individual facilities.

4.8.6 Retraining Intervals

Retraining must be accomplished at appropriate intervals of not less than every 3 years, which will ensure that employees are kept apprised of changes to operating policies and procedures as well as any technical enhancements to securement devices or appliances.

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**AAR Manual of Standards and Recommended Practices
Intermodal Equipment Manual**

M-935

IMPLEMENTED 10/2017

AAR INTERMODAL SECUREMENT SAFETY AUDIT FORM			
RAILROAD _____	LOCATION _____	DATE _____	
<i>(Circle the condition found and describe it on Page 2, referencing the exception number)</i>		(Circle one)	Excep Code
1. ALL PERSONNEL INVOLVED IN THE LOADING PROCESS HAVE			
a. Received training with the <i>AAR Intermodal Trailer and Container Securement Manual</i> If no, who specifically needs training with this manual: _____	YES	NO	(2)

b. Received training in responsibilities specific to securement	YES	NO	(4)
c. A personnel record notation that training and video viewing have been completed	YES	NO	(5)
2. POST-LOADING/PRE-DEPARTURE INSPECTION			
a. Was a post-loading/pre-departure inspection made?	YES	NO	(6)
b. Was the verification list signed off indicating an independent inspection was performed and units were loaded properly?	YES	NO	(7)
c. Was the inspection made from an acceptable vantage point?	YES	NO	(8)
d. Were all units verified?	YES	NO	(9)
e. Was supplemental lighting used when lighting or visibility was inadequate?	YES	NO	(10)
f. Are sign-off sheets maintained on file for 30 days?	YES	NO	(11)
3. INSPECTION ELEMENTS: (Ensure intermodal track protection prior to inspection) Check the following items and indicate whether "OK" or "FAIL."			
Trailers			
a. Hitch jaw or rotor locked (indicator flush or flag down)	OK	FAIL	(12)
b. Hitch diagonal strut locked	OK	FAIL	(13)
c. Trailer kingpin properly engaged in jaw or rotor assembly	OK	FAIL	(14)
d. Trailer tires properly positioned (not overriding rub-rail/raised side sill or resting on a container pedestal; completely supported by railcar deck)	OK	FAIL	(15)
e. All trailer tires present and not flat	OK	FAIL	(16)
f. Trailer landing gear properly clear of deck	OK	FAIL	(17)
g. Unit not shifted or leaning in/on car	OK	FAIL	(18)
h. Trailer doors closed	OK	FAIL	(19)
Containers			
a. Container pedestal latch or twist-lock is properly engaged and locked.	OK	FAIL	(20)
b. Bulkhead railcar flipper guides are in proper position for top container,	OK	FAIL	(21)
c. Railcar container width guides are properly positioned for size of container.	OK	FAIL	(22)
d. IBCs are properly positioned (not upside-down and the top container present).	OK	FAIL	(23)
e. IBCs are present at all positions.	OK	FAIL	(24)
f. IBCs are properly locked.	OK	FAIL	(25)
g. IBCs are properly stowed.	OK	FAIL	(26)
h. IBC handle is not inoperative, broken, or missing.	OK	FAIL	(27)
i. IBC locking handle is not broken or missing.	OK	FAIL	(28)
j. Container is not contacting partially collapsed hitch or rub-rail so as to prevent proper securement.	OK	FAIL	(29)

Fig. 4.1 AAR Intermodal Securement Safety Audit Form

**AAR Manual of Standards and Recommended Practices
Intermodal Equipment Manual**

M-935

AAR INTERMODAL SECUREMENT SAFETY AUDIT FORM (continued)

- | | | | | |
|----|--|----|------|------|
| k. | Container handling fitting is properly engaged on securement device. | OK | FAIL | (30) |
| l. | Container handling fitting is not broken or bent so as to prevent proper securement. | OK | FAIL | (31) |
| m. | Container-to-chassis securement devices are locked and secured. | OK | FAIL | (32) |
| n. | 20-ft containers are loaded only in wells approved for 20-ft loading. | OK | FAIL | (33) |
| o. | Container doors are closed. | OK | FAIL | (34) |

Flatbed/Rack Chains and Binders

- | | | | | |
|----|--|----|------|------|
| a. | Flatbed/rack has all chains and binders properly secured/stowed. | OK | FAIL | (35) |
|----|--|----|------|------|

Double-Stack Well Cars

- | | | | | |
|----|---------------------------------------|----|------|------|
| a. | Debris or foreign material is in well | OK | FAIL | (36) |
|----|---------------------------------------|----|------|------|

INSPECTION SUMMARY: CARS INSPECTED _____ PLATFORMS INSPECTED _____

CAR INITIAL/NUMBER	CONT/TRLR INIT/NO.	EXCEPTION CODE	EXCEPTIONS NOTED

SIGNATURES: _____ **DATE** _____

Auditor: _____

Auditor: _____

Manager: _____

Other Company	Signature	Title	Date
_____	_____	_____	_____
_____	_____	_____	_____

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Fig. 4.1 AAR Intermodal Securement Safety Audit Form (concluded)

**AAR Manual of Standards and Recommended Practices
Intermodal Equipment Manual**

M-935

INTERNAL AND INTERROAD SECUREMENT FAILURE REPORT

Check if this is a follow-up report: _____

(Reference the explanation of fields and codes that follows this form.)

FLATCAR INIT/NO. _____ TRLR/CONT INIT/NO. _____

DATE _____ TRAIN # _____ INCIDENT LOCATION _____

ORIGIN LOCATION _____ HITCH/CONTAINER
SECUREMENT TYPE _____

PLATFORM / WELL POS. _____ INTERCHANGE ROAD _____

INTERCHANGE LOCATION _____ CONDITION NUMBER _____

PROBLEM FOUND (Provide a brief narrative of the problem found)

ACTION TAKEN (Describe actions taken by terminal and/or mechanical personnel)

NUMBER OF PHOTOS TAKEN _____ DATE PHOTOS PROVIDED _____

INVESTIGATION RESULTS (Provide a summary of findings and resulting actions)

INITIAL REPORTING LOCATION _____ RAILROAD _____

PERSON FILING REPORT _____ PHONE _____

UPDATE REPORTING LOCATION _____

PERSON FILING REPORT _____ PHONE _____

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Fig. 4.2 Internal and Interroad Securement Failure Report

INTERNAL AND INTERROAD SECUREMENT FAILURE REPORT (continued)

A report must be filed for every incident of improperly secured trailers or containers on flatcars. (Each trailer or container with a failure is an incident, regardless if it is on the same train.) Details for completing the form follow:

Flatcar Init/No.:	Record the initial and number of the flatcar on which the trailer or container was loaded.
Trlr/Cont Init/No.:	Record the trailer or container initial and number. For containers on chassis, indicate both the chassis and container numbers (container first).
Date:	The date the discrepancy was discovered.
Train #:	Record the train that the flatcar arrived on. <i>If the discrepancy is discovered on outbound, write "Pre-Departure" in the space provided.</i>
Incident Location:	Record the location where the securement failure occurred.
Origin Location:	Record the terminal where the trailer or container was loaded.
Hitch/Container Securement Type:	For trailers, record the make and model of the hitch and whether it is retractable or fixed. For containers, indicate IBC, non-retractable latch, non-retractable helical automatic twist-lock, retractable dual fold-down, retractable single latch fold-down, as applicable.
Platform/Well Pos.:	Record the platform or well position of the improperly secured unit.
Interchange Road:	If the discrepancy occurred on a flatcar from another railroad, record the interchanging road.
Interchange Location:	If the discrepancy occurred on a flatcar from another railroad, record the point of interchange of the flatcar.
Condition Number:	Note the condition number(s) that accurately describes the discrepancy, as defined following. <i>If condition number 25 is selected, identify the discrepancy in the Problem Found section of the form.</i>
Problem Found:	Use this section to provide additional details on discrepancies (e.g., number of IBCs found unlocked; damage caused by discrepancy, who specifically found the discrepancy, etc.).
Action Taken:	Provide a brief narrative of actions taken (by whom), and indicate any remaining actions required to complete the investigation.
Investigation Results:	Note the findings of any investigation or inspection made on the unit.
Number of Photos Taken:	Indicate the number of pictures taken.
Date Photos Provided:	Indicate the date the photos were, or are expected to be, mailed.
Initial Reporting Location:	Print the location where the discrepancy was discovered.
Person Filing Report/Phone:	Print the name and phone number of the individual <i>reporting</i> the discrepancy.
Update Reporting Location:	Note the location submitting the update report (e.g., origin, car repair shop).
Person Filing Update/Phone:	Print the name and phone number of the individual providing the update report.

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Fig. 4.2 Internal and Interroad Securement Failure Report (continued)

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INTERNAL AND INTERROAD SECUREMENT FAILURE REPORT (concluded)	
Condition Numbers	
1.	Trailer/container fell from car
2.	Trailer/container struck during railcar transit
3.	Trailer/chassis kingpin engaged but not locked in hitch
4.	Trailer/chassis kingpin out of hitch (in front of, behind, on top of, or to the side of the top plate) <ul style="list-style-type: none">a. Jaw lockedb. Jaw not locked
5.	Hitch retracted or collapsed
6.	Trailer tires overriding rub-rails or raised side sills, resting on a container pedestal; not completely supported by railcar deck
7.	Trailer tire missing or flat
8.	Trailer landing gear not properly clear of deck
9.	Trailer/container shifted or leaning in/on car
10.	Trailer/container doors not closed <ul style="list-style-type: none">a. Trailerb. Container
11.	Container-to-chassis locking devices <ul style="list-style-type: none">a. Missingb. Not locked
12.	Container handling fitting not secured <ul style="list-style-type: none">a. Defective lock or pedestalb. Container not seated properlyc. Low profile casting container loaded on high profile pedestals
13.	Container handling fitting broken or bent, preventing proper securement
14.	Bulkhead railcar flipper guides not properly positioned for top container
15.	Railcar container width guides not properly positioned for size of container
16.	IBC improperly positioned (upside down or present with no top container)
17.	IBC missing
18.	IBC unlocked
19.	IBC improperly stowed
20.	IBC improper type used
21.	IBC locking handle inoperative, missing, or broken
22.	Container loaded on top of foreign object
23.	Container contacting an adjacent securement device so as to prevent proper securement
24.	20-ft containers loaded into well not approved for 20-ft containers
25.	Flatbed/rack chains or binders not properly secured/stowed
26.	Other: Indicate condition in the <i>Problem Found</i> section

Fig. 4.2 Internal and Interroad Securement Failure Report (concluded)

**AAR Manual of Standards and Recommended Practices
Intermodal Equipment Manual**

M-935

IMPLEMENTED 10/2017

TOFC/COFC INCIDENT REPORTING FORM																					
HANDLING ROAD:	ORIGIN ROAD:																				
ORIGIN TERMINAL:	LOCATION OF INCIDENT:																				
DATE (MM/DD/YY):	CARRIER REPORT NUMBER:																				
CAR INITIAL:	CAR NUMBER:																				
TRAILER NUMBER:	TYPE OF HITCH/CONTAINER SECUREMENT DEVICE:																				
CONTAINER NUMBER:	CHASSIS NUMBER:																				
INCIDENT CODE:	CAUSE CODE:																				
COMMENTS:																					
Submitted by: _____ Title: _____																					
Telephone: _____ Fax: _____																					
<table border="1" style="margin: auto;"> <thead> <tr> <th colspan="2">INCIDENT CODES</th> </tr> </thead> <tbody> <tr> <td style="width: 5%;">1.</td> <td>Trailer/chassis/container falling from car</td> </tr> <tr> <td>2.</td> <td>Trailer/chassis/container struck</td> </tr> </tbody> </table>		INCIDENT CODES		1.	Trailer/chassis/container falling from car	2.	Trailer/chassis/container struck														
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TOFC INCIDENT CAUSE CODES	COFC INCIDENT CODES																				
T1. Hitch/jaw not locked	C1. Container not secured																				
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T5. Trailer tire on top of rub-rail	U1. Unknown																				
T6. Trailer tire contacting pedestal																					
T7. Chassis-to-container securement device unlocked																					
O1. Other																					
U1. Unknown																					
When using TOFC/COFC incident cause codes O1 or U1, please complete the <i>Comments</i> portion of this form.																					
Send to Manager—Intermodal Operations Committee Association of American Railroads c/o Transportation Technology Center 55500 DOT Road Pueblo, CO 81001																					

Fig. 4.3 TOFC/COFC Incident Reporting Form

**AAR Manual of Standards and Recommended Practices
Intermodal Equipment Manual**

M-935

**INSTRUCTIONS FOR COMPLETING THE
AAR TOFC/COFC INCIDENT REPORTING FORM**

General instructions and report filing	<p>This form must be completed any time an intermodal trailer, chassis, or container falls from a freight car; shifts laterally and strikes a freight car, passenger car, locomotive, or other object in right-of-way; or shifts longitudinally and strikes an adjacent freight car or intermodal trailer, container, or chassis.</p> <p>All reports should be filed with the AAR as soon as possible after the incident.</p>
Header information	<p>The first block of information is self-explanatory. It is recognized that each carrier will have much more detailed information in place internally. However, the basics will suffice for AAR reporting. Hitch types are listed in the <i>AAR Intermodal Trailer and Container Securement Manual</i>. A carrier should assign a number to each report it submits to facilitate tracking.</p>
Comments	<p>Complete this section when reporting TOFC/COFC Incident Cause Codes O1 or U1. Also complete this section to report any other information you think may be helpful.</p>
Reporting party	<p>The incident report may be submitted by a variety of departments on the railroad and, in some instances, a third party. This section is very important for clarification of information on the report, and it enables follow-up actions.</p>
Incident codes	<p>This section lists the only two incident types that need to be reported. Remember, if a piece of intermodal equipment falls from the car or strikes another piece of equipment or an adjacent railcar, a report is required even if the equipment involved does not cause a derailment.</p>
TOFC incident cause code	<p>Codes T1 through T7 are self-explanatory. Note that a container-on-chassis is considered a TOFC load. Please complete the <i>Comment</i> section if codes O1 or U1 are reported.</p>
COFC incident cause code	<p>Codes C1 through T3 are self-explanatory. Please complete the <i>Comment</i> section if codes O1 or U1 are reported.</p>

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Fig. 4.3 TOFC/COFC Incident Reporting Form (concluded)

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