



— FIELD GUIDE | FIRST EDITION

FIELD RECOVERY GUIDE

The quick-reference field guide for airport operations teams,
FBO line crews, and mutual-aid recovery partners — what to do when
a disabled aircraft is on your runway - from first call to runway clear.

SUBJECT

Disabled Aircraft Field
Recovery Operations

WRITTEN FOR

Airport Ops
FBO Line Crews
Recovery Partners

WRITTEN BY

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MADE IN THE
U.S.A.

KEEP THAT RUNWAY OPEN.

PLANESKATE.COM · EST. 2012



— ABOUT THIS GUIDE

DISABLED AIRCRAFT RECOVERY

— THE FIELD GUIDE.

This is the handbook, the quick reference guide, and the reminder that there is a sequence of events to work through before you send tools and teams out to do a job that can hurt someone or damage an expensive aircraft further than it already is.

Keep a copy with your field recovery kit. Train from it before you ever need it.

“One crisis is enough.
Don’t make your aircraft recovery another.”

— MICHAEL WISKUS

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COMPILED	Michael Wiskus	EDITION	First Edition July 2026
FOR	Airport Operations, FBO Line Crews, & Mutual-Aid Recovery Partners	TOOLS	The Go-To Recovery Kit

 AUTHORITY & SCOPE

This guide does not authorize anyone to move, lift, tow, or otherwise handle a disabled aircraft. The aircraft operator retains ownership and decision authority. Airport operators manage the airfield environment and provide mutual aid as agreed. Always coordinate through the aircraft operator’s designated recovery representative before any physical movement of the aircraft.



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DO YOU HAVE TO NOTIFY THE FAA / NTSB?



NOTIFICATION NOT REQUIRED

A flat or failed **tire or wheel** that simply needs help getting off the runway — with **no other damage** to the aircraft.



NOTIFY BEFORE YOU PROCEED

A **runway excursion**, or **damage beyond the wheel** — gear collapse, prop or engine strike, structural damage, and the like.

When in doubt, notify. Reporting thresholds are set by regulation — NTSB 49 CFR 830.5. Confirm with your local FSDO.



SCAN FOR THE
FULL RULE · 49
CFR 830.5



WHAT'S YOUR PLAN?

This guide is the reminder that there is a sequence of events to consider before you send your tools and teams out to do a job that could get someone hurt — or damage an expensive aircraft even further than it already is.

It comes into play after the FAA, local FSDO, and NTSB have been notified, if the recovery requires such notification.

Once that has been handled and the aircraft has been released for recovery — that's when the work begins.

— IN BUSINESS, YOU ALWAYS NEED A PLAN

Employees move on. Leadership changes. Plans have to be reviewed and trained on with your line crew, your aircraft maintenance department, and airside operations if your airport has one. This guide helps you create such a plan. This guide supplements and does not replace your airport's AEP (Airport Emergency Plan) or an operator's SMS/SOP.

It starts with a contact list. These contacts are the people who have equipment and skills you don't. If the recovery scenario requires their skill set, they are contacted **before** a recovery event begins and given directions on where to meet to access the airside, as well as who their point of contact will be.

No formal training is required — only that they be available 24/7. Once they see the situation and review this guide's procedure, they will understand their job and what you are trying to accomplish.

One thing to always remember is that no plan survives first contact — stay flexible and keep the communication level high.

**The recovery may take 17 minutes or 17 hours.
It all starts with a plan, the right tools, and **teamwork**.**

— MICHAEL WISKUS



FILL THIS IN FIRST.

Complete this page before you ever need it, then keep the manual with your recovery kit. These are the people with the equipment and skills your team may not have on hand — line them up in advance.

AUTHORITIES & EMERGENCY

Police Department

Fire Department

Regional FAA Office
FSDO

Hazardous Chemicals
spill response

Airport Operations
manager / airside

FBOs

EQUIPMENT & MUTUAL AID

Local Crane Co. — 1st

Local Crane Co. — 2nd

Heavy Wrecker Co.

Flatbed Trailer Co.

Recovery Expert

Other

AIRCRAFT MAINTENANCE — LINE CREW

Mechanics / LineCrew

Tow Bars & Equipment

Aircraft Jacks

Recovery Point of Contact

HOLD-HARMLESS AGREEMENT TEMPLATE

Download and print the Hold-Harmless agreement template from [PlaneSkate.com](https://www.planeskate.com) to have on hand for when a disabled aircraft incident happens at your airport.



SCAN FOR THE
HOLD HARMLESS
AGREEMENT
TEMPLATE

FIELD NOTE

Identify which group/team is responsible for moving a disabled aircraft. Contact these people **before** a recovery event. Give them directions on where to meet for airside access and who their point of contact will be. No formal training is required — only that they are reachable 24/7 and will review this manual's procedure on arrival.

BUILD YOUR RECOVERY KIT.

Before an aircraft ever goes down, consider having the following items in place.

Stage it where your crew can reach it in minutes — not hours.

Quantities below are a starting point; scale them to your airports aircraft mix and volume.

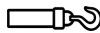


1

GROUND PROTECTION MATS

6-10 PCS · 4'x8' · 90-TON HDPE

Stop landing gear from sinking in soft surfaces during off-runway tows.



2

AXLE & TOW STRAPS

AXLE 6x24" TOW 6x20'/30' · 5,000 LB

Axle straps wrap the gear legs; tow straps connect them to the vehicle.



3

PLANESKATE RECOVERY TOOL

MIN. 1 · REC. 2 | 15K / 70K / 100K

The recovery dolly the aircraft is loaded on to. Sized to your fleet.



4

AIRCRAFT JACKS

TRIPOD / WING JACKS

Maintenance facilities have these — useful for ground-down wheels.



5

TOW VEHICLE / TUG

TUG · TRACTOR · FITTED PICKUP

Every FBO has one. A tow system can be fitted to an airport pickup.



6

UNIVERSAL TOW BAR

UNIVERSAL FIT · NOSE GEAR

Buy one or arrange guaranteed access before you ever need it. The local FBO should have what you need.



7

FORKLIFT + LIFT STRAPS

SMALL AIRCRAFT < 5,000 LB

With proper straps, lifts a small aircraft by nose or wing onto a dolly.



8

WIDE-BODY LIFTING STRAPS

QTY 2 · USE WITH SPREADER BAR

For lifting an aircraft after a partial or complete gear-up landing.



9

RATCHET STRAPS

4-6 EA · 20'/30' · 5,000 LB MIN

Secure landing gear to the deck. You can never have too many.



10

COME-ALONG TOOL

HAND WINCH · LIFT & MOVE

Excellent low-cost tool for lifting and moving loads short distances.



11

PADDING MATTRESS

AIRCRAFT < 5,000 LB AND LESS ONLY

No joke — padding for a wing or nose lift with a forklift or recovery dolly. Store dry.

§ FIELD NOTE

STAGE IT BEFORE YOU NEED IT.

A recovery may take 17 minutes or 17 hours. The difference is almost always whether the kit was ready and the crew knew where it was and what the plan was.



INSPECT AND **MAKE** A PLAN.

Once the aircraft has been released for recovery, work this page before anyone touches a tool. Three checks: 1. Secure the aircraft. 2. Walk it. 3. Brief the team.



DO NOT PROCEED UNTIL

The hold-harmless agreement is signed and the recovery is coordinated through the aircraft operator's designated representative. If any walk-around items cannot be confirmed, stop and reassess before continuing.

1

BATTERY AND SYSTEMS CHECK

Confirm the aircraft battery master switch is in the OFF position before any recovery work begins.

- ☐ Battery master switch confirmed **OFF** and **battery disconnected**.
- ☐ Confirm firewall fuel lever is in the off position. (Turn off the fuel).
- ☐ Magnetos and ELT confirmed **OFF**.

2

WALK AROUND

Take a full walk around the aircraft and confirm each of the following before committing to a recovery.

- ☐ Gross weight is compatible with the recovery tools to be used.
- ☐ No additional hidden damage to the aircraft.
- ☐ No fuel venting or ruptured fuel tanks.
- ☐ No objects, poles, potholes, or runway lighting that may impede the recovery, and determine tow route.
- ☐ Pilot-in-Command or owner/operator **agrees to the recovery and has signed a hold-harmless recovery agreement**.
- ☐ Check for hot brakes and confirm parking/wheel brakes are released.
- ☐ Photograph all sides and any existing damage before moving

3

CHOOSE, CONFIRM, & REVIEW THE LOADING SCENARIO

Select the recovery scenario with your team. Review the plan and every person's job, then confirm the route.

- ☐ Recovery scenario selected and matched to the failure (see page 10) and hold harmless signed by authorized agent.
- ☐ Each team member briefed on their specific job.
- ☐ Recovery route confirmed with the team and route cleared with ground control, if applicable.
- ☐ Confirm passengers and crew are accounted for and cargo offloaded.



ONE SCENE. ONE BOSS.

A recovery goes wrong when everyone has the best idea. Establish who is in command, who moves the aircraft, and who does what — then keep the team small.

THE INCIDENT COMMANDER

The first Airport Operations responder on scene is the Incident Commander — until command is formally transferred.

The IC coordinates the entire response and requests resources — tow, mechanic/SME, law enforcement, ARFF. Rank doesn't matter: Manager, Supervisor, or Ops Technician. What matters is that one person owns the scene and everyone acknowledges it.

STATE THE OBJECTIVE — BEGIN WITH THE END IN MIND

Before the first move, say it out loud and write it down.

Example: "Safely recover this aircraft to THE **east transient parking** in a manner that minimizes runway closure and does no further damage to the aircraft or field."

THE COMMAND CHAIN

IN ORDER

- 1 Establish the Incident Commander.** First Ops responder on scene, unless otherwise designated. Everyone acknowledges who it is.
- 2 Get authorization.** Notify the aircraft operator's representative, confirm the recovery is authorized, and confirm the person signing the hold-harmless is authorized to sign it.
- 3 Confirm who moves the aircraft.** Identify who is responsible for the move — Airport, Airline, FBO, ground handler, or contractor. Not every airport owns the equipment.
- 4 Assign roles & headcount.** Brief each person's job. Use only the hands you need; the rest keep the open runways moving. Escort outside tow teams airside.
- 5 Establish comms.** Confirm real-time contact with ATC and Ops before any movement — and keep it live while surfaces remain partially open.

DESIGNATE BEFORE YOU NEED IT

Incident Commander

First Ops Responder / Designated

Aircraft Mover

Airport / Airline / FBO / Contractor

Mechanic / A&P

On-site or on-Call (Phone / Video)

Recovery SME

Airline Maintenance / Ops Specialist / Recovery Pro

ATC / Ops Comms

Channel or Frequency

KEEP THE TEAM SMALL

One boss, period. Too many people and the aircraft gets damaged. If there's a disagreement, **STOP the recovery**, resolve it, then continue. No two recoveries are the same — but every one needs the same thing: teamwork under one clear command.



TEN BEFORE YOU TOW.

Recovering a disabled aircraft isn't about a single tool — it's about the sequence. After 31,000+ hours in the air and a career of getting aircraft off runways, these are the ten rules Michael Wiskus says hold true for any disabled aircraft, with any equipment.

01**ALWAYS HAVE A PLAN**

Completed and written long before you have an incident requiring recovery. Review and train on it as crews and leadership change.

02**STAGE THE KIT EARLY**

Build your recovery kit and stage it where the crew can reach it in minutes — not hours.

03**LINE UP YOUR PEOPLE**

Fill in your contact list in advance. Cranes, wreckers, and crews with skills you don't have should be reachable 24/7.

04**GET THE RELEASE FIRST**

Never move, lift, or tow until the aircraft is released and a hold-harmless agreement is signed. Work through the operator's representative.

05**SECURE THE AIRCRAFT**

Battery master OFF. Fuel OFF. Brakes OFF. Confirm all before anyone touches a tool.

06**WALK IT FIRST**

Check for hidden damage, fuel venting, and ruptured tanks. Confirm gross weight matches your tools and the route is clear.

07**BRIEF EVERY ROLE**

Give each person one job and confirm the route. One person is the Incident Commander and calls the pace for the whole team.

08**KEEP IT CHOCKED**

Every wheel you are not actively loading stays chocked, tight. No one stands in the pull path or recoil path of a strap/cable/chain (180* back from pull)

09**PULL SLOW, PULL MATCHED**

Match every pulling force to the same speed so the gear never twists. Tow at 10 mph or less. Consult the aircraft manufacturer's towing/recovery manual if needed.

10**PUT IT BACK READY**

Clean, inspect, recharge, and restock. Log the recovery — the next crew inherits whatever you leave behind.



SEVEN **TIPS** FOR THE SEVEN MOST COMMON SCENARIOS.

Nearly every recovery is one of seven situations — whatever tools you run. Each one has a single tip that can make or break whether it goes clean.

01 SINGLE MAIN GEAR • ONE WHEEL DOWN

DON'T OVER-BUILD A SIMPLE FAILURE

One flat or failed main is the easiest recovery there is. Match the effort to the problem — the fewer forces and people you put on a simple load, the fewer ways it can go wrong.

02 SINGLE MAIN GEAR • FROZEN OR DESTROYED WHEEL

MOVE EVERY FORCE AT ONE SPEED

When it takes more than one pull to load a seized wheel, every force has to advance at the same rate. Pull at different speeds and the load drags unevenly and twists the gear.

03 DOUBLE MAIN GEAR • BOTH MAINS DOWN

ONE PERSON CALLS THE PACE

The more lift and pull points a recovery uses, the harder it is to keep coordinated. If one point leads, the aircraft loads crooked. One voice sets the tempo for everyone.

04 NOSE GEAR • TIRE FAILURE

KNOW WHAT YOU'RE ATTACHING TO

The nose gear carries steering, lighting, and sensor wiring. Before any tension goes on, route your attachment clear of every wire and mechanical part — secure to structure, not systems.

05 OFF-RUNWAY • SOFT SURFACE

LET THE TERRAIN SET THE METHOD

Soft ground changes everything. Spread the load across more points, lay matting for firm footing, and when it's too soft to roll, lift the aircraft rather than dragging gear through it.

06 GROUND-DOWN WHEELS • NO ROTATION

EXPECT DRAG — REDUCE OR ELIMINATE IT

A wheel that will not turn drags steel on steel. Reduce the friction wherever you can, pull slow and steady, and watch for the gear catching on anything in its path.

07 DAMAGED NOSE GEAR • KEEP WEIGHT OFF IT

KEEP THE LOAD BALANCED

When a gear is damaged, take the strain off it and carry the weight on the gear that's sound. Keep every line balanced — uneven tension pulls the aircraft off-center and loads it crooked.



CLOSE IT OUT.

The runway isn't open until it's inspected, and the job isn't done until it's logged.
Fill it out while fresh — your reopening gate and your proof the runway reopened on time.

INCIDENT RECORD

Date	Scenario used see p.10
Airport / Runway	Weather / surface
Aircraft Type & Tail #	Incident Commander
Gross Weight	Equipment Used

TIMELINE & CLOSURE

NOTAM ISSUED -- : --	NOTIFIED -- : --	RELEASED -- : --	RECOVERY START -- : --	RUNWAY CLEAR -- : --
NOTAM CANCELLED -- : --				

TOTAL RUNWAY CLOSURE

REOPENING INSPECTION — BEFORE ANY SURFACE REOPENS TO AIR TRAFFIC

- ☐ Qualified personnel inspect the **recovery site and the full tow path** for FOD— debris, hardware, aircraft parts.
- ☐ Leaked fuel, hydraulic fluid, or oil is **contained and cleaned**; no contamination remains.
- ☐ No surface damage — pavement, in-pavement & edge lighting, signage — or damage is documented and reported.
- ☐ Before/after **photos taken**, flight manifest secured, and incident report filed per your SMS / SOP.
- ☐ **NOTAM cancelled** and surface reopened only after the inspection is complete.

AFTER-ACTION — DEBRIEF WITHIN 24 HOURS

WHAT WORKED

WHAT WE'D CHANGE NEXT TIME

RECOVERY LEAD	OPERATOR REP	DATE
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FIELD NOTE

Store this log with the guide in the recovery kit — the next crew inherits what you leave behind. Before/after photos and video make excellent training material and show where to strengthen the plan for the next recovery.



PLANESKATE™

KEEP THAT RUNWAY OPEN.

— THE LAST WORD

KEEP THAT RUNWAY OPEN.

A disabled aircraft doesn't have to mean a closed runway for hours. With a plan, the right tools including a PlaneSkate, and a trained team, the recovery can take 17 minutes — not hours.

MANUAL

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