

How Safe Is Your Ramp?

BY SUE YOST, HPA Consultants

Have you ever watched, and I mean

really paid attention, to the activity during a quick turnaround? Fuellers, baggage carts and belts, honey wagons and a scissor truck all on the right side of the aircraft, and passengers and flight crews getting on and off, fore and aft, on the left. This is a wonderfully orchestrated ballet of people, vehicles and equipment. One small hiccup, however, and the whole production could unravel.

In an effort to increase the safety factor in aviation, the industry has integrated proactive Human Factors training for flight crews and maintenance personnel. But what of the line crews – those who are working in adverse conditions, have their own agendas, and due to high turnover, may not have the luxury of a sustained team rhythm?

Ramp personnel are often trained on the job, fairly young, underpaid, and put in situations where they are expected to complete a job quickly and competently. They are avoiding other people, large moving objects, hazardous substances, and at the same time operating their own equipment. Add to these obstacles loud noise, working at night, in freezing rain/snow/sleet, with protective equipment on, in extreme cold or heat, avoiding jet blasts and spinning props, and you have a highly increased predisposition to errors and poor judgment calls.

The injury potential on the ramp is enormous: flammable fuels, jet and prop blasts, de-icing and other hazardous fluids, and high noise levels that can injure ears and drown out warning sounds of danger. Equipment moving can harm those unaware or



tired, and in rain, ice, and snow they are battling poor visibility as well as uncertain footing and driving conditions.

Humans are the cause of most ramp accidents; fatigue, the pressure and stress of time deadlines and brutal schedules involving many flights with fast turnarounds, negative norms (the way things are done); and a lack of awareness of an action, or lack of action, on their part, will lead to mishaps, accidents and possibly injuries.

At LBP (Toronto Airport) each week, there is at least one incident involving a fuel truck and an airplane, and the airplane is not the moving vehicle. These accidents cost millions of dollars, not to mention flight delays and cancellations, unhappy customers and more tasks for already overworked maintenance crews.

Have you ever had a tug “bump” a wall or another vehicle, or a leading edge? How about an aircraft moved without wing walkers that has creased a wingtip on a hangar door, or an aircraft backed into a wall or another airplane? Has anyone had the wrong fuel put into an aircraft, or had the wrong airplane fuelled or topped up with oil? Balance the cost of training your ramp workers in Human Factors against the cost of one mishap that requires grounding that airplane. That incident would pay for the whole crew to be educated in working safer, and the training would pay for itself many times over.

Ramp personnel feel the pressure of management decisions, tight time deadlines and flight crew and maintenance demands. If the organizational culture is one that lays blame for wrongdoing, or an honest mistake, it is understandable that an overstressed truck driver may not report a collision with a fuselage – one that could have disastrous results.

Ramp damage to aircraft, airport structures and ground service equipment now costs the global airline industry an estimated \$3 billion US annually in uninsured losses (Airports Council International, 2000). That’s a lot of seats that have to be sold to pay for the losses. It makes more sense to put a portion of that money into

training people to work safer and prevent the accidents, than to pay for the ground damage.

Human factors courses are a logical preparation for anyone who works under adverse conditions, combined with high pressure situations and tight time deadlines. Ground crews are vulnerable to errors, can impact the safety of any aircraft, and would benefit from training.

Management should measure the success of the company, not only in \$\$ and uninterrupted flight schedules, but also by the safety record of the organization. Just because it is not mandated, does not mean it is not necessary.

HPA Consultants is based in southwestern Ontario; the owner and principal facilitator, Sue Yost, has been specializing in Human Factors in Aviation Maintenance for the past 12 years. The company offers both initial and update training in Maintenance Human Factors, and now has an online HF update available. Both classroom-based HF trainings are IA renewal approved. Other workshops include QA, SMS, CARs and CRM, WHMIS and First Aid in the workplace. To see a schedule or to contact HPA Consultants, visit www.flyasafe.ca or call 519-674-5050. ■

Battery Capacity Tester



BC-5000 Cordless Battery Capacity Tester

A portable, light-weight unit designed to provide the operator with an economical, easy, and accurate means for capacity testing aircraft batteries.

Fully automatic testing for 12 volt and 24 volt Lead Acid Aircraft Batteries. Powered by the battery being tested – no AC power required. Constant current load adjustable in one ampere increments from 10 to 50 ADC. 50 mv resolution. LCD display. Over temperature protection. Audio alert when capacity test is complete.



BC-6000 Cordless Battery Capacity Tester

Designed to accurately test and report on batteries ranging from 10 AH – 50 AH. Test 12/24 volt Lead Acid batteries from 10 – 50 AH.

Constant current load in 1 Amp steps. Battery-powered operation – no AC power required. LCD display. 50 MV voltage resolution. Audio warning when capacity test is complete. USB PC connection. BC Report Utility software for hard copy print-out of test results. Cables and quick disconnect included.



BC-7000 Battery Capacity Tester

Designed to accurately test and report on batteries ranging from .5 AH – 50 AH. Test 12/24 volt Lead Acid or Nickel Cadmium batteries.

Adjustable End Point Voltage. Battery discharge mode to 1V EPV. USB 2.0 port for PC connection. Universal AC power input 85–264vac (47 to 63Hz) LCD display. 10mv voltage resolution. Adjustable constant current load in 0.1 Ampere increments from 0.5 to 15 Ampere. Adjustable constant current load in 1.0 Ampere increments from 15 Ampere to 50 Ampere. Audio warning when capacity is complete.



Activator 282 Battery Charger

This fully-automatic, 2A constant current charger switches to constant potential mode when the battery voltage reaches the pre-set limit. The 282 offers three voltage settings depending on the battery type you are charging (vented lead-acid, sealed lead-acid or nickel-cadmium) and mates with the MS-3509 battery receptacle.



CA1550 Charger/Analyzer

Charge or Discharge 12 or 24 Volt lead-acid or nickel-cadmium batteries with the easy to use, dual-featured CA1550. Charge with constant current or constant potential from 1 to 35 amps or discharge constant current from 1 to 50 amperes. This rugged unit has a digital ammeter and volt-meter as well as a digital electronic timer display.



D50 Discharger/Analyzer

Capacity check 12 or 24 Volt lead-acid or nickel-cadmium batteries with a constant current discharge from 1 to 50 amperes. The D50 offers a selection of pre-set cut-off voltages and digital meters that record end of discharge readings for elapsed time, ampere rate and end-point voltage.



C25 Battery Charger

Charge two batteries at once with the C25 Battery Charger. The C25 is ideal for charging 12 or 24 Volt lead-acid or nickel-cadmium batteries from 1 to 25 amps. It allows for constant current or constant potential charging and features a preset time limit for charging with digital electronic display.



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