OPERATIONAL RISK MANAGEMENT

Choose a SMART Award Not a Darwin Award

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Avoiding injury or disaster often comes down to a choice. You can choose to apply some personal risk management before launching into a potentially hazardous activity, or you can choose to possibly become the subject of a safety investigation. Although a safety investigation is not about retribution, it's still not much fun to have investigators write down everything you ate, saw and did in the past few days, take bodily fluid samples and then record the potentially stupid chain of events that put you in your predicament—and that's if you're lucky! If you're not so lucky, then you simply become a statistic, and life rolls on regardless of all the things you wanted to do but never had the chance.

Like most things, the USAF has formalized risk management in an AFI. Operational risk management has six steps, but it really comes down to a few simple actions. If you think (and you should) about being extra careful while standing on a wobbly chair with a power tool, or anxiously watch your fingers in close proximity to spinning machinery, then you've already taken the first risk management step, which is to **identify a hazard**. The key is to *act* on that and consider some better alter-

Project SMART is well underway, and awards are part of the program. Since avoiding catastrophe can often be a matter of choice, choose a Project SMART award instead of an embarrassing bunch of questions or a write-up from an activity gone awry.

The awards are an easy way for everyone to help promote the program and promote personal risk management in day-to-day activities.

The nomination process for a SMART award is simple—no Form 1206 and no "word-smithing"! To nominate someone for an award, a supervisor or anyone in a position of authority simply sends an informal e-mail to: usafe.sef@ramstein.af.mil. Include the full name and rank of the nominee (and the submitter), the date of the event and a brief description of the event. Any proper action taken to prevent a mishap or mitigate the consequences of a mishap can qualify. Also, any significant actions taken to promote safety or Project SMART will qualify. This is a truly easy way to add an EPR or OPR bullet, as well as earning praise for a SMART choice! natives *before proceeding further*. Proper equipment and additional help with a difficult task are the "no-brainers" to overcome many risks, which is the next step in the simplified risk management model: **consider some alternatives**. All that's left to implement risk management, is to **take the appropriate action**. Don't blow off those internal warning signals that might be indicating a potential hazard! Step back and make a better choice if you sense you're about to make good reading for *someone else* when your act is written up as an infamous Darwin Award!

What is "Safety"?



←Is this safe? And what do the *catch phrases* "Safety First" or "Safety Hazard" actually mean?

Although phrases like "Safety First"

may be a handy way to keep the concept of "safety" in mind, they're not all that helpful when you need to make decisions that may affect your personal well being. The dictionary defines safety in relation to risk: **safety** n. 1. freedom from the occurrence or risk of injury or loss.

Complete safety implies exactly what the definition states, *freedom* from risk. In reality, almost everything we do involves risk; it's just some activities have a higher level of risk than others. As a result, the real meaning of "safety" is not about "Safety First" so much as it is about properly managing risk.

When it comes to aviation, the USAF no longer uses the phrase "Safety First", because the mission actually comes first. Safe operations, however, are absolutely in-

Project SMART Topics	
June	Bike SMART
July	Travel SMART
August	Play SMART
September	Drive SMART
October	Fire SMART
November	Winter SMART
December	Celebrate SMART
January '05	Work SMART

THE SMART CHOICE

The A-C-T's of ORM 101		
Six Steps	Combine to	Simplified ACT Model*
1. Identify the Hazards		Assess the Risk
2. Assess the Risk		
3. Analyze Control Measures		Consider Options/
4. Make Control Decisions		Alternatives
5. Implement Risk Controls		Take Appropriate
6. Supervise and Review		Action

Use the 6-step process with formal planning Use the 3-step process ro quickly think on your feet *ACC's A-C-T model: https://wwwmil.acc.af.mil/se/4.1.act.htm

tegral to mission accomplishment because combat assets must be preserved. Instead of "freedom from risk", the USAF "manages risk" through proper training, superior equipment, outstanding maintenance practices, Air Force Instructions, etc. Operating risks have been identified, alternatives or mitigating factors have been considered and actions taken to implement the control measures.

Completing the 6-step (or simplified ACT) process still does not mean all activities can be "risk-free". This brings up the "principles" of ORM. The first of which is: **don't accept unnecessary risks**! After all the risks have been properly addressed, some risks might remain, and some activities might be worth this risk. Extreme sports are a good example. With proper training and the right equipment, rappelling off a cliff with a bike can be rewarding and worth the risk to some people, even though others may have a different opinion!

When it comes to accepting risk, make sure the **decision is made at the appropriate level** (second principle). That's why supervisors get paid more! Let him or her make the call! Or when it comes to personal risk management, make sure your children know that *you are the appropriate level* to decide if it's worth the risk of injury for them to get pulled on a bike—by a rope behind a car—to a jump—onto a house rooftop! They may have a \$1,000 "trick" bike, a helmet, arm and kneepads and a well-constructed jump, but while they may extol the rewards of such a feat, the consequence of landing on the corner of the building at high-speed may not be worth the risk—at your proper level of decisionmaking!

The third principle to help in the risk decision-making process is a simple formula; **accept risk when benefit outweighs cost**. It really makes no sense to undertake an activity when there's not much benefit, yet there's a high risk of injury or failure. At some point, however, if the risks have been managed to an appropriate level and there's a high payoff potential, it may be worth the decision to proceed. The decision now becomes well thought out and calculated—not haphazard!

The final principle is to **integrate risk management into all levels of activity**. It's not meant to be an "add-on" after an activity has already been otherwise planned. It's an on-going process that everyone should be using.

So, back to the original question, is the rappelling biker "safe"? The answer is, it's a bad question. The question is better put, "Has he adequately man-

aged his risks?" Hopefully, he has properly identified the hazards: equipment failures, weather, fatigue, slipping, etc.; considered risk mitigating options, going a different route, lowering the bike first, getting some help, etc.; and taken the best course of action, received a "bike rappelling" course, purchased the right equipment and has a buddy or two ready to assist. With all things considered (and a good hospital plan), the rewards of this activity may be well worth the risk of injury for this person!

Darwin, and the Art of (No) Risk Management

http://www.darwinawards.com/darwin/

When is "Safety" Not Safe?

Robert, shot himself while explaining gun safety to his wife in Glendale, California, when he placed a .45caliber pistol he thought was unloaded under his chin and pulled the trigger. His wife told police that the incident occurred after her complaints about her husband's 70 guns prompted him to demonstrate their safety.



Don't Forget the Basic Rules, That's Part of Risk Management!

It just stands to reason, one should follow safe practices while filming a safety video. But the 52year-old owner of a machinery and equipment training school, violated that rule of common sense while filming a forklift safety demonstration. With the cameras rolling, he was thrown from the cabin of his forklift and crushed. Subsequent investigation re-

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vealed the culprits responsible for the fatality: driver error and high speed over varied terrain, coupled with an unused seat belt. His final safety demonstration was the most convincing of his career.

Nice "Safety Gear", but What About Identifying the Real Hazards?

Corvallis police say a 43-year-old man died after jumping from a fire escape on a downtown building. Police say [the man] intentionally jumped from the fifth floor fire escape Saturday night while holding a neon kite with an 8-foot wingspan. He was wearing protective knee pads and a bicycle helmet. [The man] fell 36 feet to land on the roof of the second floor. He was taken to Good Samaritan hospital, where he died about 40 minutes later.

No Risk Assessment, and Definitely Not Worth the Risk!

A 66-year-old Quebec woman was hit not once, not twice, but three times by speeding cars on a Canadian highway while trying to save her Christmas trees. The woman had been driving on the highway with several conifers strapped none too securely to the roof of her vehicle, when they fell off into the traffic lanes. Although it was nighttime, and there were no lights on the road, the courageous woman risked—and lost—her life trying to rescue her trees from the speeding cars.

Never Forget: Disaster Happens in an Instant!

When disaster happens, it happens in an instant. The time to manage risk is in the planning stage for a new activity, or when risk factors begin to appear with an activity that is underway. Most normal people do not enjoy the consequences of a mishap, so it's generally easy to say that mishaps are not planned. On the contrary, mishaps occur due to a lack of planning, or a lack of dealing with a situation that is getting out of control. The key is dealing with risk at the very moment a bad situation is developing. Err to the conservative, because once the situation has already developed (even though the mishap has not yet occurred), the failures will occur in an instant and very little can be done to prevent the



Courtesy photo

consequences at that point.

Consider the bow hunters in Fond du Lac county. Did they consider the risk of actually *missing* when one man held the deer steady while the other attempted a final kill shot on the deer and skewered his brother's head instead?

Consider this partial voice cockpit transcript (see box below) of an MD-82 that crashed in Little Rock, Arkansas, while attempting to land during a thunderstorm with

windshear. The pilot and copilot discuss a lack of desire to enter the bad weather among themselves as they also communicate with the ground controller. The warning signals were there as the situation was developing. They recognized and



Courtesy photo

discussed the risk of flying into the bad weather, but they did not appear to discuss their options to hold or divert. Proper risk management requires considering the options and acting on them accordingly. The risk of proceeding with this landing attempt was certainly not worth the benefit of an "on time" landing. Reprinted from http:// www.airdisaster.com/cvr/aa1420tr.shtml (The conversation is between the pilot and co-pilot as recorded from the various cockpit area microphones [CAM]).

Finally, how about something so mundane as driving



in a parking lot while fumbling for something in a purse? Was it worth the risk of diverting attention from the responsibility of driving? Fortunately, these poles were not people!

Photo courtesty of the Naval Safety Center website: http://safetycenter.navy.mil/photo/archive/hoto121.htm

Partial	CAM Tr	anscript from MD-82
1145: 29	Mic-2	see how we're going right into this crap.
1145: 31	Mic-I	right.
1146:11	Mic-2	see we're right on the base of these clouds
1 22		so
1146: 13	Mic-I	yeah.
1146:14	Mic-2	it's not worth it.
1146: 52	Mic-I	aw, we're goin' right into this.
1149: 13	Mic-I	this is, this is a can of worms.
1149: 25	Mic-I	there's the runway off to your right, got it?
1149:27	Mic-I	no.
1149: 28	Mic-2	l got the right runway in sight.
1149:31	Mic-2	you're right on course. stay where you're at.
1149: 32	Mic-I	l got it, l got it.
1150: 01.	4 Mic-2	we're way off.
1150: 02.		l can't see it.
1150: 05.		yeah l got it.
II50: 08.		hundred feet.
1150: 14.		fifty.
1150: 13.		sink rate.
I 150:15.		forty.
1150: 15.		sink rate.
1150: 16.		thirty.
1150: 18.		twenty.
1150: 19.		ten.
1150: 44.9 [sound of impact]		
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