

Capt. Dana Archibald (American Eagle) carries his termination letter from American Eagle with him wherever he travels. In certain circles, he introduces himself with the statement, "Hi—I'm Dana, and I'm an alcoholic and an addict." Based in New York, N.Y., he flies Embraer 145s for American Eagle.

If you think those three facts don't square, you don't know enough about the HIMS Program.

The acronym doesn't tell you a thing. Neither do the words from which the acronym is derived—Human Intervention and Motivation Study. That's by design.

HIMS is the FAA-funded substance-abuse treatment program for airline pilots, which, according to the HIMS website (www.himsprogram.com), "coordinates the identification, treatment, and return to the cockpit of impaired aviators. It is an industrywide effort in which companies, pilot unions, and the FAA work together to preserve careers and further aviation safety."

"Back in 1973, when the HIMS Program started, you couldn't mention pilots and alcoholism or addiction in the same sentence," explains Dr. Donald Hudson, ALPA's Aeromedical Advisor and head of the ALPA Aeromedical Office, located in a suburb of Denver, Colo. He adds, "This program benefits the entire airline industry, but it was *not* started by doctors or the FAA—it was started by the pilots themselves."

Since the HIMS Program began, it has periodically hosted seminars for pilot volunteers who support the Program within their pilot group and other involved parties, including physicians, some of whom work for the FAA.

Archibald, the chairman of ALPA's HIMS Committee, and Dr. Hudson welcomed 270 attendees to the 12th HIMS Seminar, held September 10-12 in Denver. The group included 55 physicians, many attending the Seminar to receive certification as HIMS-qualified aeromedical examiners (AMEs). Before the Seminar, only 51 of the 4,447 AMEs in the United States were HIMS-trained.

Hudson stressed, "The main thing we want you to leave here with is that alcoholism and other types of chemi-

cal addiction are a *disease*, not a character flaw."

Because alcohol is "the drug of choice" in the airline industry, most HIMS cases involve alcoholism. Addiction experts estimate that about 5 percent of the U.S. adult population has the disease of alcoholism. "Wings and stripes do not confer immunity," as one HIMS Seminar instructor quipped, so the same percentage of airline pilots are believed to be afflicted.

Having the disease of alcoholism (or other chemical dependency) is considered a diagnosis for life, and no "cure" for the disease is known. But that does not mean that those with the disease cannot beat it.

Hudson reported that the number of flightcrew members who have entered the HIMS Program since it began recently passed the 4,000 mark. The lifetime relapse rate of those airmen, he said, was somewhere around 10–12 percent. Put another way, an estimated 88-90 percent have *not* relapsed.

How has the HIMS Program achieved this remarkable record, which is substantially better than recovery programs for the general population?

HIMS Program steps

"The industrial setting has proven to be the most effective place to intervene in the addiction process," said Dr. Michael Berry, manager of the FAA's Medical Specialties Division. "The success of industrial programs in dealing with chemical dependencies has far exceeded pro-

grams set outside the job site. This is definitely true of airline programs."

The HIMS Program involves a proven sequence of steps—peer identification, intervention, evaluation and diagnosis, treatment, and recertification.

Dr. Quay Snyder, Associate Aeromedical Advisor in ALPA's Aeromedical Office, pointed out that the expensive, federally mandated alcohol and drug testing conducted by the U.S. airline industry catches fewer than 12 pilots per year. The HIMS Program, because it involves peer identification, brings about 100 flightcrew members per year into the recovery program.

Some participants come to HIMS on their own, because they realize they have a problem and need to do something about it. More common, however (because denial is both a major symptom of addiction and a major obstacle to treating it), pilots enter the HIMS Program as a result of an intervention by fellow pilots who support the Program as peer volunteers and by HIMS-trained airline management personnel.

As Archibald pointed out, the worst case is for the employee to be caught under the influence of drugs or alcohol while on duty—via reports from other employees or passengers, TSA screeners, random drug tests, or other sources. In such situations, the airline usually fires the employee, and the FAA suspends or revokes the pilot's airman certificates. Pilots have entered the HIMS Program and gotten back into the cockpit after being caught, but the path is very difficult.



PHOTOS: JAN W. STEERLIK

Dr. Donald Hudson, ALPA's Aeromedical Advisor, HIMS Program manager, and head of the ALPA Aeromedical Office, moderates an evening session for physicians.

First Officer Dave Fredrickson, who heads up the HIMS Program for American Airlines pilots, declared, "Punitive protocols only do one thing—they drive addiction underground." He made a strong case for the *financial* benefits of HIMS to the airline. Laying out a detailed analysis, he concluded that, with 142 American Airlines and American Eagle pilots in the HIMS Program, that Program is saving AMR Corporation almost \$360 million—savings of \$37.30 return on investment for every dollar spent. The savings come from such sources as reduced sick leave, the cascade of training costs associated with a pilot leaving the airline, asset restoration and preservation, and rehabilitation cost savings.

Hudson stressed the importance of friends, family, and coworkers acting to address addiction because early intervention can prevent company discipline and save the pilot's career or life. Also, untreated addiction is an aviation safety issue—and in some ways not immediately obvious to the layman.

Snyder outlined the common warning signs of alcoholism that show up in the airline pilot community. Early signs, often ignored, include tardiness, increased use of sick leave, obvious inattention to personal grooming, training problems, complaints about personal/family problems, errors and omissions, hostility and blaming, and other pilots declining trip pairings with the alcoholic. Later signs, often denied, include heavy use of aftershave or cologne, heavy drinking on layovers, hangover on the day of flight, alcohol on breath or clothing, and arrests for driving under the influence (DUI). Very late signs include testing positive for alcohol and losing FAA medical certification.

Pilot-peer monitors and AMEs with long experience in identifying flightcrew members with a substance-abuse problem said they receive tips from many sources; often spouses or other family members make the first call. Experienced HIMS coordinators cautioned that they will act on such calls only after they have received three or more independent, verifiable reports of incidents in which the pilot was involved.

As mentioned, denial plays a major role in addiction. That's why intervention is so important. Dr. Lynn Hankes pointed out, "Lying is a conscious distortion of re-

ality; denial is a subconscious distortion of reality." Intervention, he added, "is about motivating patients to change" and "is necessary because the alcoholic is blinded to reality."

Hankes said the "myths" about treating addiction include the notion that the patient must "hit bottom" before beginning recovery. The point of intervention, he said, is to "raise the 'bottom.'"

Capt. Fred Beardsley (Delta, Ret.) was one of the many rescued before reaching that point. He declared, "This Program has saved a *lot* of lives.

"I was the product of a [Delta Air Lines] intervention in 1984. I went through a full intervention with the chief pilot and four of my friends. When I walked through the door, I knew the cat was out of the bag.

"The lady who assessed me is here today—she saved my life. This program saved my life, saved my career, saved my marriage. It made me a better father, a better husband. I'm a better man for it."

Several presenters stressed that, in

an intervention, one must preserve the pilot's dignity and be very careful not to trigger defiance.

During an intervention, Fredrickson will sometimes drop some plastic ice cubes into a glass and ask the pilot to pour water into the glass to show the size of his typical drink. "I guarantee, they'll go at least three for one," he reported. "If they say they're drinking a jigger, they're probably drinking at least three."

Intervention usually leads directly to evaluation and diagnosis by a physician or other professional health care provider with special training in addiction; the process can take a couple of days. If the evaluator diagnoses the airman with a chemical dependency, the pilot will be removed from flight status and begin treatment.

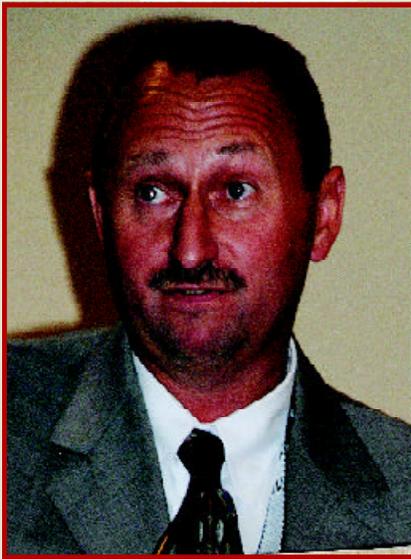
Capt. Jeff Kilmer (FedEx), chairman of the ALPA Human Performance Group (which includes the following committees: Aeromedical, Critical Incident Response Program, HIMS, Pilot Assistance, and Professional Standards),

HIMS

The Quiet Success Story

Since 1973, more than
4,000 pilots have
entered a unique program
to save their careers
and, in some cases,
their lives.

By Jan W. Steenblik
Technical Editor



Capt. Dana Archibald (American Eagle)

emphasizes, "During this offline, short-term disability period, the paycheck, seniority number, vacation, and sick bank accruals of a pilot in the HIMS Program are protected and remain in force uninterrupted."

Treatment

The goals of treatment, Hanks explained, are to "penetrate denial, conceptualize the disease, reconnect the pilot to his or her feelings, and find the core issues. It's also important to involve the family, develop relapse strategies, and inculcate mutual-help groups."

He added that treatment must be "tri-dimensional," necessarily involving the body (detoxification and ending organ damage), mind (cognitive restructuring and emotional rebalancing), and soul (spiritual restoration). The formal treatment program usually lasts between 3 weeks and 3 months.

Of the various types of treatment available, intensive inpatient treatment (usually for 28 days) is by far the most successful, and therefore the "gold standard" for the FAA. Why 28 days? To "match the intensity of treatment to the severity of the disease," said Hanks.

After the 4 weeks of inpatient treat-

ment, the HIMS participant begins a program of comprehensive continuing care, such as daily AA or Narcotics Anonymous meetings. Pilots in recovery are strongly encouraged to go directly from inpatient treatment to "90 in 90"—i.e., attending 90 AA or NA meetings in 90 days. Hudson pointed out, "About 70 percent of recovery occurs *after* leaving the inpatient treatment facility."

Hanks asserted, "AA is empirically validated as the best form of maintenance treatment developed to date."

He said the famous 12 steps of the AA program could be summarized as four major stages in an AA member's path to recovery—"giving up, cleaning up, making up, and growing up."

Formal treatment, he added, emphasizes "I *can not* drink," while AA focuses on "I *can not-drink*."

Hanks attributed the success of the HIMS Program to "three things—monitoring, monitoring, and monitoring," a reference to the FAA's require-

This Is Your Brain on Drugs



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Dr. Kevin McCauley was a U.S. Navy flight surgeon and F/A-18 pilot. Given the painkiller Demerol after surgeries of his own, he became an addict, "spiking" the drug intravenously. He wound up in the military prison at Ft. Leavenworth, Kans., where he began to dig into something he was never taught in

medical school—what science has learned about addiction.

At the 2007 HIMS Seminar, McCauley gave a riveting presentation, "Is Addiction Really a 'Disease'?"

Dr. McCauley asserted, "I think the entire credibility of addiction medicine rests on how we answer that question. This is really a question about causality."

The boiled-down version: Addiction is a brain disease. Drugs don't work in the frontal cortex (the part of the brain that confers emotional meanings onto objects, is the seat of self and morality, and is the source of love, morality, decency, responsibility, and spirituality). Drugs work in the midbrain, also known as the "limbic" brain.

The midbrain is the survival brain; not conscious, it is a life-and-death processing station for arriving sensory information. The midbrain acts immediately, with no future planning or assessment of long-term consequences. It handles three basic functions—eat, kill (or defend), and sex.

"We like to think we are fully conscious of all our brain's activities,"

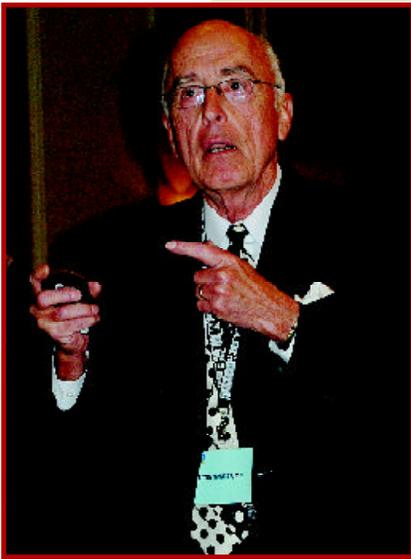
McCauley said. "We believe that the cortex is always stronger than the midbrain (i.e., that the cortex has 'top down' control over the midbrain). Neurologic evidence proves otherwise."

The addicted brain is quantitatively different from the normal brain. As McCauley said, for the alcoholic, "It's not just a beer anymore—it's the main way of coping with life."

At the core of every pleasurable experience is release of a chemical called dopamine in the brain. Chronic, severe, unmanaged stress changes the brain's ability to process dopamine. The patient develops "anhedonia," or "pleasure deafness," and can no longer derive normal pleasure from things that have been pleasurable in the past. Thus addiction is a stress-induced "hedonic dysregulation."

Drugs cause dopamine surges in the midbrain reward system. The surges cause the midbrain to tag the drug as the new primary coping mechanism for all incoming stresses.

The second part of addiction, says McCauley, is that after the midbrain



Dr. Lynn Hankes

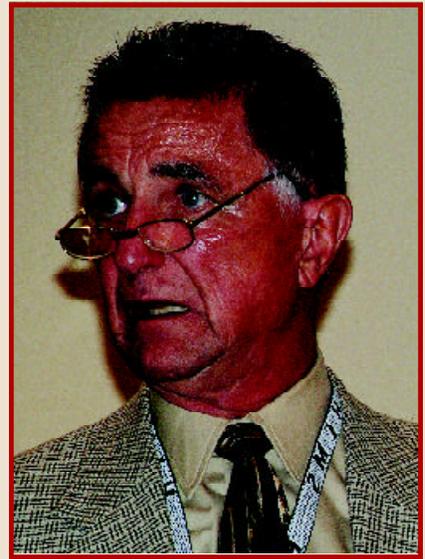
ment that the pilot have monitoring meetings every 30 days for at least 2 years with his or her sponsoring AME and, separately, with a peer monitor.

As part of the overall monitoring process, the pilot must be evaluated and



F/O Dave Fredrickson (American)

monitored by a specially trained AME who acts as the pilot's sponsor. The role of the AME is to evaluate the quality of the airman's recovery program and make a recommendation to the FAA regarding the agency's granting



Paul Hoover

the pilot a Special Issuance (SI) FAA airman medical certificate.

Total abstinence is required; the pilot may neither try to cut back to "moderate" drinking, or substitute substances. If the pilot's original problem



Drugs cause dopamine surges in the midbrain reward

system. The surges cause the midbrain to tag the drug as the new primary coping mechanism for all incoming stresses.

misperceives the hedonic/survival importance of the drug, the median fore-brain delivers that misperception to the frontal cortex. The drug then takes on personal meaning—the addict develops an emotional relationship with the drug and derives his or her sense of self from it.

The argument—"using drugs is a choice"—fails, says McCauley, because it does not take into account craving, a state in which the frontal cortex largely shuts down.

"It's not that the addict doesn't have 'values,'" Dr. McCauley explains. "It's that in the midst of the survival panic of craving, the addict cannot draw upon those values to guide behavior. The midbrain now reigns, and conscious thought becomes constricted—and free will fails.

"With installation of coping mechanisms (Alcoholics Anonymous), the frontal cortex comes back 'on line,' and free will returns."

The two tasks of addiction treatment, says McCauley, are to (1) give the addict workable, credible tools to proactively manage stress and decrease craving, and (2) find the thing that, for the individual addict, is more emotionally meaningful than the drug—and displace the drug with it.

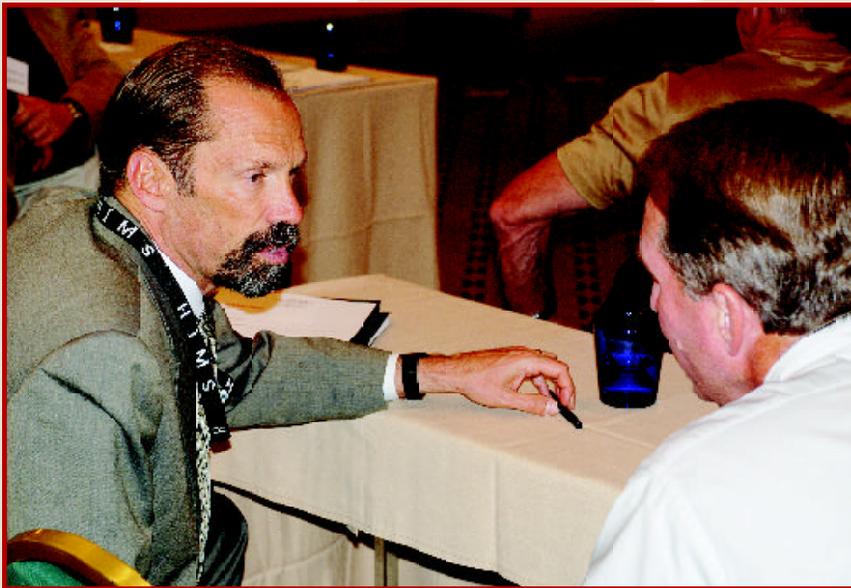
Closely related to the first task is understanding that punishment won't stop drug use, because the drug equals survival in the addict's brain, and survival trumps every other human need or desire. The addict must secure survival before attending to anything else.

McCauley told the HIMS Seminarat-

tendees, "The pain of an addict is as great as that of any cancer patient."

He noted, "If addiction is a disease, then addicts are patients and have the same rights as all patients. All the ethical principles that apply to treatment of other patients now also apply to addicts, and physicians have a duty to defend addicted patients from those with agendas that would do them harm."

But what's to keep the addict from using "I have a disease" as an excuse? The problem, says McCauley, is not that addiction doesn't fit the disease model (it does), but that the disease model itself (though powerful and useful) has inherent problems. The worst problem is that the disease model transfers power from the patient to the doctor and absolves the patient of responsibility. Alcoholics Anonymous and other "12 step" programs, however, place considerable emphasis on personal responsibility and accountability.—*JWS*



Dr. Quay Snyder, left, ALPA's Associate Aeromedical Advisor, speaks with an attendee.

involved prescription drugs, he or she can't substitute alcohol for them, or vice versa; the point is that the airman has a clinically demonstrated problem with chemical dependence, so switching chemicals won't work.

Hudson discussed two basic models for peer monitoring: (1) individual, and (2) group ("the gaggle"), which has the "multiple eyeball" advantage of participants monitoring each other. Each approach has its pros and cons.

Paul Hoover, who was the first HIMS director during the mid-1970s, acknowledged, "The monitoring model is tough for pilots to accept for a couple of reasons: (1) It requires baring your soul to an authority figure, and (2) pilots are cognitively oriented—i.e., they like facts and fixing stuff; interpersonal relationships are not their strong suit."

No one says it's easy. But one reason for the HIMS Program's success is that pilots in the Program have so much to save by achieving and maintaining their sobriety—including their ability to continue in their chosen profession.

Recertification

One of the FAA's requirements for giving an alcoholic or addicted pilot an SI airman medical certificate is post-treatment "P&P" (i.e., psychological and psychiatric evaluations), which normally takes 2 days. The process involves reviewing records, testing, and interviews.

Psychologist Robert W. Elliott, Ph.D.,

Birds of a Feather

Birds of a Feather, International (BOAF) is a self-help group—Alcoholics Anonymous (AA) for pilots. BOAF is a closed, nonsmoking AA meeting for pilots and cockpit crewmembers who are active or inactive in any segment of aviation (general aviation, airlines, or military).

Five recovering pilots (three actively flying, two not flying) started BOAF in the Pacific Northwest in 1975. The next year, the fledgling program received the support of Dr. H. I. Reighard, the FAA Federal Air Surgeon at the time.

Today, BOAF has "nests"—cities where BOAF meetings are held—throughout North America and Europe. Nests are expected soon in Australia and New Zealand.

Dr. Lynn Hanks says, "AA is the cake; Birds of a Feather is the frosting." Capt. Rusty Noble (a corporate pilot for Quien Sabe Corporation), the current BOAF secretary or "Big Bird," cautions, "We don't recommend to new members that the

BOAF nest be their *home*group."

Hanks adds, "We tell doctors in recovery that they can't just go to IDAA [AA for physicians]—they also have to go to 'street' AA, because if they *just* go to IDAA, they're at risk of continuing to believe in their 'terminal uniqueness.' Same thing for pilots."

The Bird Word, the BOAF newsletter, is published quarterly. It contains personal stories of sobriety from pilots, letters to the editor, nest news, articles of interest to airmen, and lists of nests and contacts worldwide.

BOAF has a treatment scholarship program that will help defray the costs of sending a recipient to the Father Martins Ashley 28-day intensive treatment program in Havre de Grace, Md. (45 minutes north of BWI). Noble notes that, of the six pilots to whom BOAF has given these scholarships, five have received SI medical certificates from the FAA and returned to the cockpit; the sixth is still sober, but decided to leave aviation as a profession.

For more information about Birds of



The BOAF lapel pin incorporates the Alcoholics Anonymous logo's triangle (service, unity, and recovery) and is a discreet testament to the wearer's determination to live a life free of chemical dependency.

a Feather, visit www.boaf.org. The current BOAF secretary, Capt. Rusty Noble, Box 1486, Ardmore, OK 73402, can be reached at rnoble@brightok.net or 580-221-4588 (cell) or 580-653-2814 (home).—JMS

What's "a Drink"? and Other Important Stuff to Know



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The "standard" drink contains 0.6 ounce of ethyl alcohol (C_2H_5OH , also called ethanol)—the same product of fermentation that is added to some gasolines. And 0.6 ounce of ethanol is contained in

- 1.5 ounces of distilled liquor (i.e., 80 proof, which is 40 percent ethanol by volume),

- 12 ounces of beer (5 percent alcohol), or
- 5 ounces of wine (12 percent alcohol).

Each of these, in this age of super-sized everything, is much smaller than what many people think of as "a drink."

Perhaps more important, how quickly does ingested ethanol affect your body, and how quickly does your body metabolize it?

A "standard" drink (see above) will raise the blood alcohol concentration (BAC) of an *average* 160-pound adult to 0.03 percent in one hour. The *average* rate at which men metabolize ethanol is 0.3 fluid ounces (i.e., half the "standard" drink) per hour, or 0.015 percent BAC per hour; for women, the average rate is a little faster—0.018 percent BAC per hour.

The *average* metabolic rate is just that, however—an average. Body

weight, gender, presence or absence of food in the stomach, and frequency of alcohol ingestion can significantly affect the actual metabolic rate.

According to FAR Part 121, Appendix J, V.F.1., a flightcrew member with a BAC greater than 0.02 percent is not ready for duty; when the BAC exceeds 0.04 percent, the airman is unfit to fly, and reporting to work in that condition is a clearcut violation of FAR 121.458(b). Thus "legal" drinking—i.e., abiding by the "eight hours bottle-to-throttle" rule alone—can result in a BAC greater than 0.02 percent.

In some high-profile cases of pilots flying while impaired by alcohol, the pilots' BAC exceeded 0.06 percent because they had consumed 8–14 drinks the evening before reporting for duty.—*JWS*

said he encourages physical presence of the patient's spouse or "significant other" during the P&P. He interviews the spouse or SO to validate factual information, evaluate the pilot's family support system and codependency traits, unearth issues between airman and spouse/SO, and support recovery/reinforcement.

P&P testing is conducted no sooner than 30 days after the end of inpatient treatment, or 60 days of sobriety.

The sponsoring AME collects and reviews the pilot's records, conducts an FAA medical exam, and forwards the file to FAA headquarters. After headquarters review, the case goes to the FAA's Airman Certification Branch in Oklahoma City.

The total time involved from intervention or self-disclosure to receiving the SI certificate from the FAA is several months in a noncomplicated case; as Hudson noted, "Patience is required."

Relapses

What about the relatively small percentage of HIMS participants who relapse? Hankes noted, "We aren't surprised when cardiac patients and diabetics relapse. But people act

shocked when addicts relapse."

The relapse "risk points" include release from inpatient treatment; the airman's first "sober" FAA physical exam; arrival of the FAA SI airman medical certificate; the first "sober" trip; anniversaries; and stressful life events, which vary widely among individuals.

The keys to preventing or managing relapses, Hudson explained, are early detection and intervention; withdrawing the SI certificate; and pursuing retreatment options (no limit on the number, but retreatment tends to be longer and more intense each time). Dr. Hudson noted, "A relapse is not the end of the pilot's career, but it does require retreatment and an intensified monitoring structure."

Though the FAA typically requires monitoring for 3 years, the agency has required monitoring for the duration of a pilot's flying career when the circumstances warranted doing so.

Fredrickson says, "We maintain about a 1 percent long-term failure rate within HIMS at American Airlines. This occurs through repeated relapse until they leave aviation, noncompliance with a course of treatment, or early retirement to avoid treatment.

"When a pilot fails to recover through HIMS, it usually includes the destruction of the family unit. At American, [untreated pilot alcoholism] is 100 percent fatal within three years."

For the great majority of pilots with chemical dependency, however, the Program has been a tremendous success—which also benefits the airline industry as a whole and the traveling public.

Hudson declared, "So far, we haven't had a single accident or incident involving a pilot flying with an alcohol- or drug-related SI certificate since the Program began. Right now, about a thousand active airline pilots have SIs."

They're out there, living in the present, getting through the day, one day at a time—thanks to the HIMS Program, started not by doctors or the FAA, but by pilots helping each other.

So how to square the fact that Capt. Archibald still flies for American Eagle, despite the termination letter in his flight bag? His chief pilot had the letter typed up and ready to deliver, but Archibald agreed to enter the HIMS Program; the chief pilot withdrew the letter, which Archibald got to keep as a reminder of the day he came to the major crossroads in his life. 🌐