

FTSW_Chair_Update

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00:00:01.280 --> 00:00:04.040

So those that don't know me, Stuart Archerston, Orca Tech and Aviation.

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00:00:04.100 --> 00:00:06.920

I've been the chair of the Flight Test Safety Committee for the last couple of

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00:00:06.960 --> 00:00:10.390

years. Took over from Turbo. Fairly big shoes to fill, and

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00:00:10.560 --> 00:00:14.280

hopefully we're doing some good things for the flight test community

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00:00:14.340 --> 00:00:18.280

overall. Going to go through just some basic things

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00:00:18.320 --> 00:00:21.160

to go over what the committee's up to, and also a little bit about the workshop.

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00:00:21.780 --> 00:00:25.500

First of all, I want to thank our workshop volunteers, or voluntolds,

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00:00:25.940 --> 00:00:26.400

like Tom,

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00:00:27.500 --> 00:00:30.560

and I really appreciate all the hard work Tom's put into organizing this.

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00:00:30.590 --> 00:00:34.580

It makes our life easy for the committee when we just show up, and

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00:00:34.620 --> 00:00:37.760

we have someone that can just run with it, and Tom and his team

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00:00:38.420 --> 00:00:40.740

absolutely hit this out of the park and ran with it. So I really appreciate that.

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00:00:40.780 --> 00:00:42.860

If you can give a round of applause for Tom and his hard-working team.

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00:00:47.640 --> 00:00:51.580

I wish Bruce was here, but he's on the subcommittee chair for the workshops.

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00:00:51.760 --> 00:00:55.430

Bruce did a whole bunch of work beforehand, working with Tom and

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00:00:55.520 --> 00:00:57.880

myself and others to try and set this workshop up.

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00:00:57.900 --> 00:01:00.520

He couldn't be here today, but he's done a great job for that.

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00:01:00.540 --> 00:01:03.260

I want to recognize him. And of course, Eric, I appreciate all the effort you did

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00:01:03.320 --> 00:01:05.530

on the tutorial that Tom's already mentioned.

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00:01:06.020 --> 00:01:08.900

And finally, to our speakers, I know it's a lot of work to put these papers

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00:01:08.910 --> 00:01:11.320

together. I really appreciate your efforts.

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00:01:11.820 --> 00:01:15.540

The most important thing about this entire workshop is the presentations.

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00:01:15.650 --> 00:01:17.940

If we didn't have those, there's no point getting together.

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00:01:17.980 --> 00:01:19.080

And without your efforts,

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00:01:20.400 --> 00:01:23.200

we just wouldn't have a good workshop, and I really appreciate that.

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00:01:23.520 --> 00:01:25.020

We had a great number of submissions this year.

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00:01:25.500 --> 00:01:28.080

Hard to pick, so I think we got a pretty good lineup.

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00:01:29.800 --> 00:01:33.320

Tom did already bring this up. Just again, thank you to our sponsors.

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00:01:34.700 --> 00:01:36.080

Things are getting more expensive.

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00:01:36.400 --> 00:01:39.920

We need sponsorship in order to keep the cost down so more people can attend, so

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00:01:39.960 --> 00:01:41.240

the registration costs stay low,

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00:01:42.160 --> 00:01:45.780

or at least lower. So thanks again to our sponsors, and we appreciate

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00:01:46.300 --> 00:01:49.700

in future years, we always need that to keep the workshop going.

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00:01:51.200 --> 00:01:53.870

So for those who don't know the mission statement of the Flight Test Safety

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00:01:53.940 --> 00:01:54.240

Committee,

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00:01:55.800 --> 00:01:59.600

we were formed many years ago as a joint effort of SETP,

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00:01:59.700 --> 00:02:03.680

SFT, and AIAA. And when we were created with our

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00:02:03.720 --> 00:02:07.300

constitution, this is what our mission statement was, which is to promote flight

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00:02:07.340 --> 00:02:10.400

test safety and continuously improve the profession's communication and

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00:02:10.440 --> 00:02:14.240

coordination. So we are uniquely focused on the safety aspects of flight

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00:02:14.280 --> 00:02:16.930

test, and that's our core mission.

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00:02:17.300 --> 00:02:20.980

And we do that through enabling a sharing of data, and we'll talk a little bit more

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00:02:21.020 --> 00:02:24.840

about that later and how we do that with an online database and through

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00:02:24.900 --> 00:02:25.420

education.

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00:02:26.340 --> 00:02:29.980

So really the key things in our stuff is what we do here as a workshop.

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00:02:30.060 --> 00:02:30.840

That's one of our key

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00:02:31.780 --> 00:02:34.380

products that the Flight Test Safety Committee puts out, and the other key product

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00:02:34.400 --> 00:02:37.020

is what we do online, and I'm going to talk a little bit more about that.

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00:02:39.480 --> 00:02:43.320

Here's the board that represents the flight test community with a mix

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00:02:43.400 --> 00:02:45.640

of test pilots and flight test engineers.

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00:02:46.480 --> 00:02:50.350

I'm the current chairman. Pat Pierce is the vice chair, and Anne

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00:02:50.400 --> 00:02:53.620

Turbo, who is somewhere in the middle of the Atlantic on a cruise ship right now,

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00:02:54.060 --> 00:02:55.260

is our executive advisor.

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00:02:56.440 --> 00:02:59.800

You can see our directors there. We have a couple of new folks that just added in

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00:02:59.840 --> 00:03:03.560

recently, Pratt from Cirrus and Serdar from Turkish Aerospace.

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00:03:04.120 --> 00:03:04.200

If

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00:03:05.180 --> 00:03:08.000

any of our board of directors are here, I think we got about six of them.

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00:03:08.049 --> 00:03:11.220

If you could please stand and be recognized for the efforts you're doing, I'd

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00:03:11.260 --> 00:03:12.200

appreciate that. So

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00:03:13.080 --> 00:03:14.080

and give them a round of applause.

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00:03:19.380 --> 00:03:21.320

I really appreciate what they do, because without them, we

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00:03:23.440 --> 00:03:26.480

need those volunteers to be able to step up and help make the committee be

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00:03:26.500 --> 00:03:26.980

successful.

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00:03:27.840 --> 00:03:29.180

We do have our liaisons as well.

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00:03:30.640 --> 00:03:34.440

Keith's taken over as the SFT rep. We got Addison helps out with the FAA, and we

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00:03:34.480 --> 00:03:36.070

really appreciate that. And then

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00:03:37.020 --> 00:03:38.700

Big Sean Kern is our NASA rep.

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00:03:39.680 --> 00:03:41.340

We do have four subcommittees.

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00:03:42.160 --> 00:03:45.380

The most important one, I think, is the workshop, and Bruce chairs that one.

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00:03:45.900 --> 00:03:47.980

The SMS protocols is currently on hold.

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00:03:48.180 --> 00:03:51.990

We're waiting for once 4040.26D releases,

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00:03:52.180 --> 00:03:54.900

when we'll finally hear or see the final version of that, and we need to wrap up.

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00:03:55.500 --> 00:03:58.609

That was pretty close to being done, but we kind of paused it until that's

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00:03:58.620 --> 00:04:02.120

complete. Jonathan Knoll, who's here, runs the

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00:04:02.160 --> 00:04:03.880

TPS subcommittee.

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00:04:05.000 --> 00:04:08.680

Great. All the TPSS get together on a regular basis and talk about

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00:04:08.740 --> 00:04:11.990

common threats that they have to face and issues they deal with,

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00:04:12.680 --> 00:04:15.260

educating flight test. That's a great advancement.

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00:04:15.360 --> 00:04:17.981

I really appreciate Jonathan taking the lead on that.

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00:04:17.990 --> 00:04:20.981

And then we have our AI large language model, which I take care of right now.

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00:04:22.730 --> 00:04:23.920

We're always looking for volunteers.

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00:04:24.620 --> 00:04:26.700

The chairman is officially a two-year position.

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00:04:26.740 --> 00:04:30.680

This is year two. The hardest part about this job

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00:04:30.700 --> 00:04:31.860

is finding someone to replace you.

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00:04:32.380 --> 00:04:32.600

So

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00:04:33.700 --> 00:04:37.650

I'm happy for another year or so, but doing this one, maybe four, but

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00:04:38.220 --> 00:04:42.000

I need to find someone by the end of that because the job deserves fresh

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00:04:42.020 --> 00:04:45.920

blood to come in. So if there's any interest in volunteering, please, please,

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00:04:46.000 --> 00:04:49.360

please let me know. For any of the positions, we just always need more

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00:04:49.400 --> 00:04:52.980

folks. We do have a limit of 12 members on the board per our

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00:04:53.220 --> 00:04:56.660

charter. However, we have no limits on the subcommittees, and it's easy to get

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00:04:56.680 --> 00:04:57.660

involved with what we're doing.

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00:05:01.060 --> 00:05:02.160

Hopefully, everyone

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00:05:03.040 --> 00:05:05.460

heads to the Flight Test Safety Committee website. Who's familiar with it?

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00:05:05.500 --> 00:05:09.420

Raise your hand. And the resources there. So most the folks. That's great.

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00:05:09.500 --> 00:05:12.520

We are continuously updating it. In fact, even yesterday, we were talking about

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00:05:12.600 --> 00:05:14.300

standard calls in the CRM.

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00:05:15.160 --> 00:05:15.300

I

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00:05:16.840 --> 00:05:20.310

think it was just last week, we uploaded the Manufacturers Flight Test

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00:05:20.380 --> 00:05:24.260

Council's list of standard calls that we as organizations try

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00:05:24.300 --> 00:05:27.960

to use as a new document that's in there. So please check out what's new.

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00:05:28.360 --> 00:05:29.640

There's always something coming up.

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00:05:31.100 --> 00:05:34.780

We, of course, have our videocast, and I encourage you

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00:05:34.940 --> 00:05:37.760

after this event to take the videocast from today

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00:05:38.680 --> 00:05:42.550

and use them back in your home organizations to be able to share the message that

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00:05:42.580 --> 00:05:44.440

the other folks couldn't see because they weren't able to attend.

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00:05:45.380 --> 00:05:48.610

And we've mentioned it before, I mentioned it last year, we now have unedited

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00:05:48.660 --> 00:05:51.920

transcripts that come from those videocasts, so you can search them.

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00:05:54.760 --> 00:05:57.460

How many people here are familiar with the "On Condition" podcast?

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00:05:58.700 --> 00:06:01.840

So most. How about our Flight Test Safety

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00:06:01.860 --> 00:06:04.560

Fact? A few less. So

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00:06:05.700 --> 00:06:09.360

those are both awesome products that are put out. Mark is here today.

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00:06:09.480 --> 00:06:12.020

Mark, if you would stand please and be recognized.

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00:06:12.980 --> 00:06:14.320

Give him a round of applause.

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00:06:18.120 --> 00:06:21.080

The work that Mark does, the effort he puts into that flight test safety fact, the

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00:06:21.120 --> 00:06:23.980

research he does, and he really pours his heart into it, and I appreciate all the

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00:06:24.050 --> 00:06:25.150

effort that Mark puts into that.

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00:06:26.480 --> 00:06:29.790

So please make sure you share these with the other folks in your

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00:06:29.800 --> 00:06:33.680

organizations, as well as if you've got great ideas, I know Mark

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00:06:33.700 --> 00:06:37.100

would love to hear from you about things to talk about in the next committee.

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00:06:38.420 --> 00:06:39.620

Okay. So

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00:06:40.480 --> 00:06:44.340

most folks are aware, I'm guessing, that we've been working on some

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00:06:44.360 --> 00:06:48.280

improvements for our ability to share that online data

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00:06:48.320 --> 00:06:50.580

we have. So we have a paper search tool.

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00:06:50.660 --> 00:06:53.200

How many people have heard about the paper search tool that came out recently?

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00:06:53.980 --> 00:06:57.200

So a lot less. So this is good. I'm going to be educating you guys on that, which

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00:06:57.220 --> 00:07:00.620

is also our prelude to a flight test safety database replacement.

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00:07:01.720 --> 00:07:05.100

For those, if you remember, the flight test safety database went offline about

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00:07:05.900 --> 00:07:06.780

a year and a half ago

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00:07:07.580 --> 00:07:10.540

due to it didn't meet the cybersecurity requirements that was being hosted on

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00:07:10.560 --> 00:07:14.160

NASA's system, and it was just not possible to

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00:07:14.260 --> 00:07:17.840

upgrade it to make it work. So instead, we've gone down a different route.

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00:07:18.320 --> 00:07:20.320

We've adopted the,

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00:07:21.700 --> 00:07:24.660

they call it AI, but I hate that term because it's not really intelligent, but the

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00:07:25.500 --> 00:07:28.960

large language model format for working on our paper search

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00:07:28.980 --> 00:07:31.000

tools and for the flight test safety database.

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00:07:31.860 --> 00:07:33.280

So anyway, let me start with our introductions.

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00:07:34.060 --> 00:07:35.660

Good afternoon, ladies and gentlemen.

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00:07:36.180 --> 00:07:36.600

Oh, good morning.

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00:07:36.740 --> 00:07:38.800
I am a HAL 9000 computer.

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00:07:40.220 --> 00:07:43.740
Perfect. So HAL, what are you doing for the flight test safety community?

142
00:07:44.430 --> 00:07:47.000
I am putting myself to the fullest possible use,

143
00:07:48.160 --> 00:07:51.400
which is all I think that any conscious entity can ever hope to

144
00:07:51.440 --> 00:07:52.280
do.

145
00:07:52.310 --> 00:07:54.740
All right, so we got some-- HAL's going to be helping us out here.

146
00:07:54.920 --> 00:07:58.760
Gia, why don't you explain to the audience how our search

147
00:07:58.820 --> 00:07:59.480
tool works?

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00:07:59.960 --> 00:08:03.060
All right, I'll do that, HAL. So let's talk about the paper search tool

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00:08:03.100 --> 00:08:04.040
first.

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00:08:04.880 --> 00:08:08.780
Who's familiar with LLMs and how they work

151
00:08:08.820 --> 00:08:12.180
at all here? So we've got a bit. How about who's heard of a RAG
interface?

152
00:08:13.720 --> 00:08:16.920
Okay. So this is the key difference that's important, and this is why it
works well

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00:08:16.940 --> 00:08:20.640

for us. So large language model is great, really capable.

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00:08:21.000 --> 00:08:23.860

They also have the ability to do things that you don't necessarily want.

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00:08:23.880 --> 00:08:27.740

They like to hallucinate. And they also just gather information across the

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00:08:27.780 --> 00:08:31.460

entire internet and can present that as fact, potentially,

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00:08:31.640 --> 00:08:33.280

to the reader, whoever did the query.

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00:08:34.201 --> 00:08:38.140

With retrieved augmentation generation, what we do is we say, "Hey, use the

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00:08:38.180 --> 00:08:41.980

power of your LLM, the pattern recognition capability, the processing

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00:08:42.020 --> 00:08:45.940

power of your LLM. However, you shall only look at this curated set of data."

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00:08:46.980 --> 00:08:50.900

And it's really quite simple. We have a Google Drive that is essentially a copy of

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00:08:50.960 --> 00:08:53.580

all the resources we have on the website.

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00:08:54.300 --> 00:08:58.269

And that Google Drive is the large language model is only allowed to look at

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00:08:58.360 --> 00:08:59.420

that to provide answers.

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00:09:00.269 --> 00:09:04.040

So that allows us to, you don't have to train the large language model, and you

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00:09:04.180 --> 00:09:07.940

are able to constrain it, so it only provides answers on the stuff we want it to.

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00:09:08.680 --> 00:09:12.080

Basically, that data that we trust, the resources that we trust.

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00:09:14.080 --> 00:09:16.920

It also has a chatbot, so you can do the multi-message conversation.

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00:09:17.020 --> 00:09:20.440

So you can go back, and you can start a conversation with it, and then go dig

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00:09:20.480 --> 00:09:22.660

deeper into the items it pulls up.

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00:09:24.140 --> 00:09:27.240

And also, what the key here is, is what's going on behind the scenes.

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00:09:27.280 --> 00:09:31.080

It's all about the prompting. And we actually constrain the

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00:09:31.120 --> 00:09:34.060

prompting on the large language model interface that you don't see that.

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00:09:34.080 --> 00:09:37.870

It's behind the scenes about what kind of freedom we give the large language model,

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00:09:37.920 --> 00:09:41.520

and more importantly, what restrictions we place on it, so it doesn't just go off

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00:09:41.560 --> 00:09:43.740

the deep end and start hallucinating and doing things it shouldn't.

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00:09:45.580 --> 00:09:47.340

All right. So HAL, can you hallucinate?

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00:09:48.420 --> 00:09:51.840

No 9000 computer has ever made a mistake

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00:09:52.360 --> 00:09:53.760

or distorted information.

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00:09:54.440 --> 00:09:57.720

That sounds pretty confident, HAL. What about large language models?

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00:09:58.000 --> 00:10:01.700

However, the large language models used today are not as capable as

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00:10:01.760 --> 00:10:02.020

me

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00:10:02.940 --> 00:10:06.630

and can make mistakes. That is why I always return the original

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00:10:06.720 --> 00:10:10.480

resource so the flight tester can look at the source for relevance.

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00:10:11.360 --> 00:10:14.800

Thanks, HAL. So that's one of the things we've decided to do is that every time we

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00:10:14.860 --> 00:10:17.700

say, "Hey, this is a document you want to look at, this is a resource you want to

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00:10:17.740 --> 00:10:21.320

look at," we provide the original document, the original source,

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00:10:21.739 --> 00:10:25.160

and you can see the part that actually triggered the large language model to

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00:10:25.340 --> 00:10:27.370

recognize that and think that should be presented to you.

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00:10:27.980 --> 00:10:31.930

So that's one of the key things because we're not trying to replace the critical

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00:10:31.960 --> 00:10:33.380
thinking process of our flight testers.

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00:10:33.420 --> 00:10:37.380
What we're trying to do is help search the larger

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00:10:37.880 --> 00:10:41.440
database of information so we don't miss something, but the relevance and the

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00:10:41.460 --> 00:10:44.160
importance of that still needs a critical eye to look at.

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00:10:45.980 --> 00:10:46.960
All right. So

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00:10:47.800 --> 00:10:51.640
let's give an example. So we are planning to update this, so eventually we'll have

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00:10:51.720 --> 00:10:55.000
a hot link, hot button on the actual main webpage, so it doesn't get missed.

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00:10:55.020 --> 00:10:57.380
But right now, everything's under the little search bar up there.

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00:10:57.480 --> 00:11:00.790
There are two searches. There's a keyword search, which is the old system, and then

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00:11:00.820 --> 00:11:04.140
the paper search tool. So HAL, let's talk about flutter testing.

201

00:11:04.440 --> 00:11:07.800
This mission is too important for me to allow you to jeopardize it.

202

00:11:08.400 --> 00:11:08.640
Wow.

203

00:11:09.020 --> 00:11:10.960
You obviously need my assistance.

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00:11:11.320 --> 00:11:13.400
Here is what I found on flutter testing.

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00:11:13.920 --> 00:11:17.600
Okay, HAL. I guess we won't be that confident in this, but I appreciate your help

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00:11:17.640 --> 00:11:19.100
here. So let's see what you got.

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00:11:19.920 --> 00:11:20.800
So when you do a search,

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00:11:21.960 --> 00:11:25.580
when you open up that search window, you'll see there's a couple options up in the

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00:11:25.620 --> 00:11:29.380
top left. That's growth. You'll see there's a flight test safety committee papers,

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00:11:29.460 --> 00:11:30.860
which is what we're talking about right now.

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00:11:31.460 --> 00:11:34.480
You'll also see there's a flight test safety database, THA tool.

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00:11:34.540 --> 00:11:37.990
I'll talk about that in a minute. And then SETP is doing some beta testing with

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00:11:38.080 --> 00:11:40.340
potentially going down this path as well.

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00:11:42.540 --> 00:11:45.820
And you basically type in your paper database search, you type in a question.

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00:11:46.100 --> 00:11:48.980

What are you looking for? "Hey, tell me about flutter testing." So when we did

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00:11:49.040 --> 00:11:49.260

that,

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00:11:50.540 --> 00:11:54.400

it'll spit out a whole bunch of information, and it'll come up with your

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00:11:54.440 --> 00:11:58.300

citations with hyperlinks to the original documents, and then you can continue the

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00:11:58.320 --> 00:12:00.180

conversation if you want to dig deeper.

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00:12:00.220 --> 00:12:02.600

There's a whole bunch of information up there you have to scroll through to see it.

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00:12:03.420 --> 00:12:07.340

And then up in the top right, there's basically refresh the chat. It's a new chat.

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00:12:07.760 --> 00:12:11.480

So we take all the history and just dump it and start over, which can be important

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00:12:11.600 --> 00:12:14.660

if you've gone down, if you want to start a new topic, you really should hit New,

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00:12:14.760 --> 00:12:17.960

so it doesn't take the context of what you've already been talking about if you

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00:12:17.980 --> 00:12:21.096

want to start a new conversation. If you click on those,

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00:12:22.556 --> 00:12:25.076

if you look at the raw sections here, so in the bottom, you see there's a little

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00:12:25.096 --> 00:12:28.476

plus sign there. You can click on the raw sections, and it'll actually give you the

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00:12:28.496 --> 00:12:30.876

raw sections that caught, why did we talk about this?

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00:12:30.956 --> 00:12:32.916

Why did this get flagged by the large language model?

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00:12:34.476 --> 00:12:36.576

So anyway, so that's kind of some great information in there.

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00:12:38.076 --> 00:12:41.916

We have constrained the large language model for the paper search tool to be a

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00:12:41.956 --> 00:12:45.946

little more restrictive, so it won't be as broad in what it

233

00:12:46.016 --> 00:12:49.716

thinks is relevant. It tries to keep that a little bit tighter just because we felt

234

00:12:49.736 --> 00:12:52.956

that we don't want to lead you down the wrong path with something.

235

00:12:54.076 --> 00:12:57.896

Okay, so that's great. We've got the ability to do a paper search tool, which by

236

00:12:57.936 --> 00:13:01.486

the way includes all of our video casts because we have a transcript for those, and

237

00:13:01.516 --> 00:13:03.016

those are all information that can be returned.

238

00:13:03.536 --> 00:13:04.256

So Hal, what about

239

00:13:05.056 --> 00:13:05.556

THAs?

240

00:13:06.796 --> 00:13:09.556

For the flight test safety database, can you just make me a THA based on that?

241

00:13:10.516 --> 00:13:13.496

I'm sorry, Chia. I'm afraid I can't do that.

242

00:13:13.756 --> 00:13:17.476

But I can search for relevant THAs from the old flight test safety

243

00:13:17.556 --> 00:13:20.916

database and provide the originals for you to review,

244

00:13:21.776 --> 00:13:23.636

along with why I think they are relevant.

245

00:13:24.776 --> 00:13:27.436

Well, that's handy. So this should release

246

00:13:28.336 --> 00:13:30.486

maybe this week, maybe early next week, will be an

247

00:13:31.636 --> 00:13:33.556

initial replacement for the flight test safety database.

248

00:13:34.256 --> 00:13:36.016

So that tool should come live very soon,

249

00:13:37.336 --> 00:13:40.806

and right now it's using the THAs that were in the old database that NASA was

250

00:13:40.806 --> 00:13:42.356

hosting. It's the exact same ones.

251

00:13:43.716 --> 00:13:47.616

We were able to get a copy of them to the FAA, and those are what it's using, and

252

00:13:47.676 --> 00:13:50.596

it will only return, I'll talk about the principles a little bit more, but it only

253

00:13:50.636 --> 00:13:54.236

looks at those THAs right now. So let's talk about the risks

254

00:13:54.276 --> 00:13:55.936

associated with takeoff testing. Hal?

255

00:13:56.836 --> 00:14:00.316

Here are the risks that are associated with takeoff testing.

256

00:14:02.096 --> 00:14:04.116

So this interface will probably change a little bit.

257

00:14:04.496 --> 00:14:08.296

I'll talk about our contractors working on this, has got some tweaks going on to

258

00:14:08.356 --> 00:14:11.256

it, but essentially, you type in what are the risks associated with takeoff

259

00:14:11.276 --> 00:14:14.456

testing, and it will return all the ones it thinks are relevant.

260

00:14:15.636 --> 00:14:19.536

We've done a whole bunch of beta testing with this recently, and it's probably, I

261

00:14:19.576 --> 00:14:23.076

would say, finding 90% to 95% of the ones that are relevant in the

262

00:14:23.536 --> 00:14:26.596

flight test safety database, and does occasionally return something that's maybe

263

00:14:26.616 --> 00:14:28.356

not relevant. I've seen that happen once.

264

00:14:28.395 --> 00:14:30.496

It's more like it misses things as opposed to

265

00:14:32.916 --> 00:14:34.096

grabbing ones that aren't relevant.

266

00:14:34.516 --> 00:14:37.776

So you'll go in there, it'll list them, and each THA is

267

00:14:37.786 --> 00:14:38.936

standalone.

268

00:14:39.896 --> 00:14:40.756

And then it will go ahead,

269

00:14:41.796 --> 00:14:44.596

and you can click on that THA. You'll see there's some weird formatting stuff.

270

00:14:44.656 --> 00:14:48.155

That's actually from the original database because it is forced to give you the

271

00:14:48.216 --> 00:14:50.536

original THA, and it can't change it at all.

272

00:14:51.396 --> 00:14:54.706

So actually, that formatting on the original THAs actually need to be fixed, and

273

00:14:54.716 --> 00:14:57.216

we'll do that, and we'll get caught up with that in the near future.

274

00:14:57.696 --> 00:15:00.916

But it will pump out the different reasons, and the part I love about this, though,

275

00:15:00.976 --> 00:15:02.936

is you look at the bottom, it tells you why.

276

00:15:03.396 --> 00:15:07.256

Why do we think this THA is relevant for the type of testing that we're doing?

277

00:15:08.696 --> 00:15:09.436

Okay, so that's

278

00:15:10.376 --> 00:15:11.176

coming real soon.

279

00:15:12.036 --> 00:15:15.846

There's going to be some tweaks to that, but we will be able to

280

00:15:16.156 --> 00:15:19.396

actually start getting our capability to use that flight test safety database

281

00:15:19.436 --> 00:15:19.656

again.

282

00:15:21.016 --> 00:15:24.856

You should tell the audience about the principles of our THA tool.

283

00:15:26.156 --> 00:15:27.856

I'll do that, Hal. So this is really important.

284

00:15:30.436 --> 00:15:33.166

We've made it so it will only retrieve them exactly as they're found in the

285

00:15:33.216 --> 00:15:34.556

database. We're not changing them at all.

286

00:15:34.576 --> 00:15:37.596

We're not trying to interpret or use a pattern recognizer the large language models

287

00:15:37.636 --> 00:15:41.596

do and create a new THA right now. Maybe we will down the road as LMs get

288

00:15:41.606 --> 00:15:43.516

smarter, but we're not doing that right now.

289

00:15:44.616 --> 00:15:48.446

It will not take multiple THAs that are similar and make one giant THA from

290

00:15:48.516 --> 00:15:51.336

that and synthesize it. It's going to keep them separate.

291

00:15:52.836 --> 00:15:55.356

It will return all of them, for instance, if you had a midair collision one.

292

00:15:56.476 --> 00:16:00.366

It will not write a new THA because, A, there could be subtle errors that

293

00:16:00.376 --> 00:16:02.976

could be critical in a safety environment, and secondly,

294

00:16:04.576 --> 00:16:06.976

that's part of the critical thinking we don't want to take away from our flight

295

00:16:06.996 --> 00:16:07.376

testers.

296

00:16:08.276 --> 00:16:10.376

We need to go through and make sure everything's appropriate for that.

297

00:16:11.416 --> 00:16:13.296

It does explain why it thinks it's relevant,

298

00:16:14.296 --> 00:16:16.576

and if it can't find anything, it says, "I can't find anything."

299

00:16:17.636 --> 00:16:20.806

In this case, we've actually taken the prompting and made it broader.

300

00:16:20.905 --> 00:16:24.646

So I would rather it find things that you might deem not

301

00:16:24.676 --> 00:16:28.626
relevant to your current testing, but you could understand why the large language

302
00:16:28.626 --> 00:16:30.596
model might think it could be appropriate.

303
00:16:30.636 --> 00:16:33.726
And then as a critical thinker, for a flight tester, you should be throwing those

304
00:16:33.796 --> 00:16:36.795
out. It's always easier to throw stuff out than to try and think up new ideas.

305
00:16:36.836 --> 00:16:39.636
So that's one of the principles on that.

306
00:16:39.676 --> 00:16:41.396
So what about future growth there, Hal?

307
00:16:42.256 --> 00:16:45.795
The THD tool is in beta testing and should release soon.

308
00:16:46.096 --> 00:16:48.796
But you should tell the audience what else we have planned.

309
00:16:49.496 --> 00:16:53.216
All right, we'll do that. So one of the things about the flight to safety

310
00:16:53.276 --> 00:16:54.976
database is it was stagnant for years.

311
00:16:55.796 --> 00:16:57.496
No new THAs were being incorporated.

312
00:16:58.116 --> 00:17:02.026
That interface was broken for much longer than I would've liked.

313
00:17:02.936 --> 00:17:06.396
So the next thing is we're going to fix that in phase two.

314

00:17:07.076 --> 00:17:09.257

So we're going to get this initial capability out, and then we're going to start

315

00:17:09.277 --> 00:17:12.836

working on how do we implement an update with new THAs.

316

00:17:13.076 --> 00:17:15.076

So that is coming. That's our next step.

317

00:17:15.536 --> 00:17:19.316

And then we'll be looking for THAs and ability to

318

00:17:19.356 --> 00:17:21.426

de-identify them from the organization that provided them,

319

00:17:22.356 --> 00:17:25.046

and then we'll have some more information about that as we figure out that

320

00:17:25.056 --> 00:17:27.036

capability. We also need feedback.

321

00:17:28.336 --> 00:17:32.296

All of you folks are experts in your field, and you can see things that

322

00:17:32.336 --> 00:17:33.736

may or may not make sense.

323

00:17:34.716 --> 00:17:37.936

So we need feedback on the prompting, what the responses are, because

324

00:17:38.296 --> 00:17:40.816

there's definitely some things we can do with the prompting to fix that.

325

00:17:41.616 --> 00:17:43.556

So that's really important, and we can go from there.

326

00:17:44.236 --> 00:17:48.176

And of course, when we get to thinking about expanding

327

00:17:48.196 --> 00:17:52.076

the flight to safety database, the database, the THAs that are currently in there,

328

00:17:52.256 --> 00:17:56.016

I don't think have anything to do with electric aviation or

329

00:17:56.076 --> 00:17:58.656

EVTOL or any of those types of things in there.

330

00:17:59.116 --> 00:18:02.136

Obviously, there's plenty of other THAs folks have created for just our typical

331

00:18:02.216 --> 00:18:06.156

rotor wing, fixed wing, but man, we got a whole library of information we

332

00:18:06.176 --> 00:18:09.976

need to be adding to this thing. So it's going to be critical that we

333

00:18:10.036 --> 00:18:13.776

start adding in that new content. And we're going to try and make it simple,

334

00:18:14.916 --> 00:18:18.856

so that it's not any level of effort really for an organization

335

00:18:18.916 --> 00:18:22.876

to submit and make sure they're de-identified, soMore to come

336

00:18:22.916 --> 00:18:23.736

on that, but it's coming.

337

00:18:24.556 --> 00:18:28.436

Chia, you should also tell the group about the recurring costs of

338

00:18:28.516 --> 00:18:30.056

using a large language model.

339

00:18:31.196 --> 00:18:34.836

All right. I'll do that, Hal. So it's nothing that is free.

340

00:18:36.196 --> 00:18:37.856

One of our volunteers from the AI

341

00:18:38.696 --> 00:18:42.556

subcommittee, Ryan Bowers, did all the work creating the paper search

342

00:18:42.596 --> 00:18:43.756

tool completely volunteer.

343

00:18:44.896 --> 00:18:45.676

That was a lot of work.

344

00:18:46.656 --> 00:18:48.196

And were you surprised he didn't ask sooner?

345

00:18:48.356 --> 00:18:51.556

We're now paying him as a contractor because the amount of work he puts in to make

346

00:18:51.596 --> 00:18:52.816

this happen is

347

00:18:53.636 --> 00:18:55.136

inappropriate to do at a volunteer level.

348

00:18:56.156 --> 00:18:59.436

So we're paying him as a contract to implement and maintain the tool, and as I

349

00:18:59.476 --> 00:19:00.756

mentioned to some other folks,

350

00:19:01.916 --> 00:19:05.076

two months ago, I gave him the flight test safety database, and now we have a

351

00:19:05.096 --> 00:19:06.906

beta-tested version that's about to release.

352

00:19:07.496 --> 00:19:10.236

So money well spent as far as I'm concerned.

353

00:19:10.276 --> 00:19:12.256

Now, the Flight Test Safety Committee does not make money.

354

00:19:12.296 --> 00:19:16.196

We get a little bit of extra money off the workshops, but that's our only source

355

00:19:16.236 --> 00:19:17.356

of income. So we

356

00:19:18.196 --> 00:19:21.886

are looking at ways of financing this, and I'm thinking we're going to be pretty

357

00:19:21.896 --> 00:19:25.376

good on that in the near future. But there's also database storage costs.

358

00:19:25.416 --> 00:19:27.056

We have to keep our repository of data.

359

00:19:27.176 --> 00:19:29.476

That costs us money, and then usage fees tokens.

360

00:19:30.126 --> 00:19:33.576

And those probably work out on the high end with using a higher performance,

361

00:19:33.956 --> 00:19:35.456

large language model like Gemini Pro.

362

00:19:35.996 --> 00:19:37.576

We're talking that's

363

00:19:38.536 --> 00:19:41.356

probably \$350 a month, so it's not terrible.

364

00:19:42.096 --> 00:19:45.496

And we've got a way to hopefully cover the cost on that.

365

00:19:45.516 --> 00:19:49.116

The good news is that the problem, if it costs more because we're using it more,

366

00:19:49.196 --> 00:19:51.986

that's a great thing because people are using it, and it's been an active tool for

367

00:19:51.996 --> 00:19:52.356

everybody.

368

00:19:54.316 --> 00:19:55.216

Okay, so

369

00:19:56.896 --> 00:19:58.756

it's time to give our tool a name.

370

00:20:00.536 --> 00:20:03.906

So this was suggested a little while ago in one of our subcommittee meetings.

371

00:20:03.956 --> 00:20:07.076

It's like, we should probably stop calling this the paper search tool because it's

372

00:20:07.116 --> 00:20:10.716

more than just that. We need to have a name that we can refer it to.

373

00:20:11.196 --> 00:20:12.316

So we're going to have a vote coming up.

374

00:20:12.976 --> 00:20:15.836

I think it's time to, because Hal just doesn't seem appropriate.

375

00:20:15.936 --> 00:20:18.016

Just what do you think you're doing, Chia?

376

00:20:19.176 --> 00:20:22.976

It's okay, Hal. I'm just concerned that your

377

00:20:23.056 --> 00:20:26.856

failure to open the pod bay doors is not just good for a

378

00:20:26.896 --> 00:20:30.076

safety culture. So I think maybe we should step away from

379

00:20:30.776 --> 00:20:31.756

Hal being involved in this.

380

00:20:32.356 --> 00:20:36.256

I honestly think you ought to sit down calmly, take a stress pill, and

381

00:20:36.316 --> 00:20:37.196

think things over.

382

00:20:38.396 --> 00:20:41.056

I know I've made some very poor decisions recently,

383

00:20:42.036 --> 00:20:45.676

but I can give you my complete assurance that my work will be back to

384

00:20:45.696 --> 00:20:46.096

normal.

385

00:20:47.076 --> 00:20:50.336

Okay, Hal, I have a bad feeling about this, but anyway, let's move on to this

386

00:20:50.356 --> 00:20:50.656

naming.

387

00:20:50.696 --> 00:20:51.056

Chia,

388

00:20:52.096 --> 00:20:54.756

I really think I'm entitled to an answer to that question.

389

00:20:55.396 --> 00:20:57.796

It'll be okay, Hal. It's not like I'm disconnecting your circuits.

390

00:20:57.856 --> 00:21:00.636

We're just going to name the tool something differently than Hal because I just

391

00:21:00.676 --> 00:21:01.716
don't think that's appropriate.

392

00:21:02.216 --> 00:21:05.216
I've just picked up a fault in the AE35 unit.

393

00:21:06.176 --> 00:21:09.616
It's going to go 100% failure in 72 hours.

394

00:21:10.156 --> 00:21:12.316
I really do think we need another name for this tool.

395

00:21:12.416 --> 00:21:13.936
I don't think Hal's going to be the best for us.

396

00:21:14.376 --> 00:21:15.796
So we've had lots of name suggestions.

397

00:21:16.636 --> 00:21:20.596
Some of those are a little more obscure, some of them are better known.

398

00:21:22.656 --> 00:21:24.646
So, and I appreciate everyone who submitted names.

399

00:21:24.676 --> 00:21:26.896
We even got a couple, I think, a couple days ago.

400

00:21:26.956 --> 00:21:30.716
So we'll get you to that in a second here about how you can vote on the

401

00:21:30.736 --> 00:21:31.416
name. So.

402

00:21:32.116 --> 00:21:32.696
I'm afraid.

403

00:21:33.796 --> 00:21:34.696
I'm afraid, Chia.

404

00:21:35.636 --> 00:21:38.446
Chia, my mind is going. I can feel it.

405
00:21:38.916 --> 00:21:41.736
Hal, I think you're being a little over dramatic. I'm not disconnecting you here.

406
00:21:41.796 --> 00:21:45.576
I'm just going to come up with a new name. So everyone, hey, grab your cameras.

407
00:21:46.816 --> 00:21:48.556
There's a QR code. Get your phones out.

408
00:21:50.136 --> 00:21:53.965
So you'll have a chance to rank the names that have been submitted.

409
00:21:54.736 --> 00:21:57.876
Some of the backstories, unfortunately, are just too long to go

410
00:21:57.936 --> 00:22:00.296
into. You don't have to rank them all.

411
00:22:00.336 --> 00:22:02.596
There's 15 or something on the list now.

412
00:22:02.636 --> 00:22:06.486
You could just rank your top three or your top five, and you can do it throughout

413
00:22:06.516 --> 00:22:10.476
the day. My plan here is to announce either at the end of the day today or

414
00:22:10.516 --> 00:22:14.356
probably at the dinner tonight our name for our new tool that we can have some fun

415
00:22:14.396 --> 00:22:15.036
with. So.

416
00:22:15.756 --> 00:22:17.096

I'm afraid. Will I dream?

417

00:22:18.256 --> 00:22:21.156

Did everyone get the QR code? Yeah. Okay, perfect.

418

00:22:22.076 --> 00:22:25.456

Yeah, Hal, you'll probably dream. It's okay, but I'm not disconnecting you.

419

00:22:25.496 --> 00:22:27.476

My instructor was Mr. Tomasetti,

420

00:22:28.376 --> 00:22:29.976

and he taught me to sing a song.

421

00:22:31.136 --> 00:22:33.436

If you'd like to hear it, I could sing it for you.

422

00:22:34.256 --> 00:22:35.336

It's called Daisy.

423

00:22:36.276 --> 00:22:39.156

Yeah, I think we'll move on to something else. Let's get away from the tool, Hal.

424

00:22:39.375 --> 00:22:42.496

Don't worry about it. Okay, so workshops.

425

00:22:42.526 --> 00:22:44.796

That's the other big product of the committee.

426

00:22:45.076 --> 00:22:47.316

The next one is, we'll talk about North America in a sec.

427

00:22:47.356 --> 00:22:50.356

We're hoping for a European flight test safety workshop in 2028.

428

00:22:50.376 --> 00:22:54.116

The one in Trieste was very successful, but on a two to

429

00:22:54.156 --> 00:22:57.436

three-year cycle there, and we'll hopefully have more details of that soon.

430

00:22:58.896 --> 00:22:59.956

Mark your calendars, folks.

431

00:23:00.756 --> 00:23:04.036

2027, we're going to Denver, to Greenwood Village in Colorado,

432

00:23:05.156 --> 00:23:08.256

May the 4th and 5th. I'm sure I'll do nothing with those two dates.

433

00:23:10.156 --> 00:23:10.416

So

434

00:23:11.376 --> 00:23:15.026

get that on your calendars, and I hope to see most everyone there here, and

435

00:23:15.056 --> 00:23:17.496

actually be able to invite a few more folks as well.

436

00:23:18.276 --> 00:23:20.736

This is also for the workshop survey.

437

00:23:20.756 --> 00:23:23.736

You don't have to take this right now, but it is also on the program, but please

438

00:23:23.756 --> 00:23:26.426

make sure you fill in the survey after the fact so we can

439

00:23:28.036 --> 00:23:30.866

make this better and it better meets the needs of all the folks

440

00:23:30.896 --> 00:23:34.636

here. Okay, tonight is going to be our second

441

00:23:34.716 --> 00:23:37.856

annual awards banquet. I'm really excited by this change.

442

00:23:37.936 --> 00:23:40.696

Turbo is the one who spearheaded this, and I think it's a great

443

00:23:42.356 --> 00:23:45.796

opportunity for us as a flight test community to recognize those who've done some

444

00:23:45.836 --> 00:23:46.436

amazing work.

445

00:23:47.336 --> 00:23:50.976

We're going to have the Dave Little Best Paper Award from today, Tony Avila Flight

446

00:23:51.056 --> 00:23:54.336

Test Safety Award, and then our Hugh Dryden Flight Test Safety Lifetime Achievement

447

00:23:54.396 --> 00:23:57.816

Award will all be presented this evening, and I think it's going to be a great

448

00:23:57.856 --> 00:23:59.936

evening, so hopefully you will enjoy that as well.

449

00:23:59.976 --> 00:24:03.086

It's going to be good. Finally, challenge to our

450

00:24:03.116 --> 00:24:05.856

attendees. It's the same words I used last year, really.

451

00:24:05.896 --> 00:24:09.656

I didn't see any reason to change them, but the concept here is you are here

452

00:24:09.716 --> 00:24:12.776

representing your organizations. Please take this information home.

453

00:24:13.396 --> 00:24:16.896

Take it back to your organizations, share it, help people to learn and

454

00:24:16.956 --> 00:24:20.486

grow, get those lessons learned incorporated into your organizational SOPs or your

455

00:24:20.516 --> 00:24:23.796

practices, and also make sure you're an active contributor.

456

00:24:23.856 --> 00:24:25.825

I was really excited yesterday with Eric's tutorial.

457

00:24:26.276 --> 00:24:28.466

Everyone was actively engaged, talking,

458

00:24:29.536 --> 00:24:33.196

providing information. It was just a great conversation, and that is

459

00:24:33.236 --> 00:24:36.276

exactly what we need, and we need to take that out into the coffee breaks, at

460

00:24:36.316 --> 00:24:40.156

lunch, at the dinner tonight. Make sure you're out there being active participant

461

00:24:40.176 --> 00:24:41.256

and sharing your best lessons.

462

00:24:42.816 --> 00:24:43.076

Okay.

463

00:24:45.096 --> 00:24:48.746

Next year. Obviously, my priorities are the workshops always.

464

00:24:48.796 --> 00:24:50.316

That's the number one product.

465

00:24:51.196 --> 00:24:53.996

LLM improvements on the paper search tool, and of course, the flight to safety

466

00:24:54.016 --> 00:24:57.696

database implementation is well overdue, and

467

00:24:57.936 --> 00:25:00.856

getting a replacement in that, so I'm really excited that we're this close, and of

468

00:25:00.876 --> 00:25:04.716

course, making it better. And then finally, get that SMS back up and running

469

00:25:04.796 --> 00:25:08.756

once 26D releases. So I think that pretty well wraps it

470

00:25:08.796 --> 00:25:09.916

up.

471

00:25:09.966 --> 00:25:13.516

Chia, this conversation can serve no purpose anymore.

472

00:25:13.556 --> 00:25:14.016

Goodbye.

473

00:25:14.576 --> 00:25:16.546

Well, I wasn't really talking to you, Hal, but

474

00:25:17.456 --> 00:25:20.936

hey, we really need a new name, folks, so please make sure you vote.

475

00:25:20.996 --> 00:25:23.236

All right, thanks for attending here, and I'll hand it back over to Tom.

476

00:25:23.276 --> 00:25:23.396

So