

TUESDAY LUNCH PROGRAMS

Lunch: 11:15 a.m. - noon

Program: noon - 1:00 p.m.

Sponsored by: Barn Gang

JULY 2

Hosted by Steven Soloman

'The Future of Petroleum', Bob Ellefson

You all know Bob, and you know that you are going to get an education in a short period of time. One of the things that Bob pointed out to me is that there is an entirely new vocabulary involved in discussing this topic. I'll try to keep it straight.

This talk starts with a discussion of shale oil that is a result of old lakes from 56M years ago. Each area shows differing hydrocarbon profiles, however the area under study (Utah, Wyoming, Colorado) shows many high molecular weight molecules present. The shale oil is different from tar sands or crude oil.

Surface mining of coal and underground mining have differing methods of going after the shale oil. The U.S. is the leading producer of shale oil and natural gas from fracking.

Fracking is the method of extracting natural gas from seams deep in the earth. Fracking chemicals must be sequestered so that they do not leach into the ground water.

Materials vary by location. Natural gas, crude oil, oil shale gas and shale oil, oil and tar sands, and coal. Extraction techniques vary by material being recovered and the location of the feedstock. Pipelines criss-cross the country and multiple materials can be transported in one pipeline by use of special separators. A minute amount of the material shipped has to be reprocessed due to leakage.

The rewards are the benefits of hydrocarbons for fuels and daily living.

The risks come from messy petroleum technologies:

- CO₂ generated
- Release of C₄ from permafrost (need sequestration method)
- Smog (offset by electric cars?)
- Oil spills from transport ships, trucks, pipelines

JULY 9

Our scheduled speaker had us down for another day. He will be rescheduled. The members of Barn Gang stepped in to provide an interesting program.

Neil Webster gave a summary of his recent vacation including an extended discussion on the wreck of the Edmund Fitzgerald.

Walt Hoy told a couple interesting 'war stories' about his time in the Philippines.

Steven Frey showed us film of the SB-70 test flights. Steven is something of an expert on this airplane. The SB-70 at the National Museum is the plane that was filmed for these first test flights.

First flight had to be late 1964, early 1965 (based on the automobiles).

-First flight was subsonic. Landing gear problems were identified as well as a brake problem upon landing.

-Second test flight was essentially trouble free. They remained subsonic.

-Third test flight was the first supersonic flight at Mach 1.1

-Fourth test flight was supersonic to Mach 1.4 and incorporated tests of the folding wing tip design

Everything about this unusual aircraft was designed for speed. The plane was to replace the B-52, fly at Mach 3, and be able to fly intercontinental flights.

With six engines, the internal baffles were to control the supersonic shock waves and to provide additional lift. The front canards were for trim control to minimize drag and improve speed. The heat generated by supersonic flight caused problems with the old-school computers despite the air conditioning. Switching to silicon based transistors would have fixed the problem, but the cost was prohibitive and the program was bypassed. The SR-71 was faster and simpler.

JULY 16

'The Real George Washington', Ken Grimes, Thanks Steven Soloman

JULY 23

'Steam Power and Boiler Operations', Tom Mastbaum

JULY 30

'Cedarville University Underwater Robot', Dr. Clint Kohl

AUGUST 6

'Failed Inventions', Barn Gang Members share their stories

AUGUST 13

OPEN

AUGUST 20

'An Angel at Bull Run', Dan Stevens, Thanks – Dick Palmer

AUGUST 27

CLUB CLOSED FOR CLEANING

SEPTEMBER 3

***'Hypertufa', Sandy Sweetnich and Lisa Dineen, K-12 Gallery
Thanks, Jerri Stanard***

SEPTEMBER 10

OPEN

SEPTEMBER 17

OPEN

SEPTEMBER 24

***'Katherine Wright, a novel', by Tracey Wood
Books will be available for sale***

OCTOBER 1

OPEN

OCTOBER 8

'Tent- AI and Human Factors', Sharon Bommer

On Hold

Karl Ayers, 'Time'

Brian Kowal, Disinformation

Dr. Krane, next DNA talk in sequence

'Solar Geoengineering', Brian Kowal

'title pending'. Chuck Ciampoglio PhD, Wright State University, Lake Campus, Thanks

Dr. Krane

Golden Lamb Historian, Jim Mattice, at the Club or at the Golden Lamb

Museum of the Air Force speakers bureau, Dick Palmer

Smithsonian Series, Brian Kowal and George Liston

Mike Browne, Roman construction methods, viaducts & bridges

'The Microchip Manufacturing Process', Jagdish Prasad, Silfex

Bob Stone & Chuck Martel, The new unleaded avgas