Planning a PASSCAL experiment

What to consider to obtain the best results of all your efforts

Our Resources available to you

PASSCAL STAFF

- 37 Trained staff to help you with logistics, field training, data archiving, user support

INSTRUMENTATION

- A wide range of instrumentation provide for free to the community to facilitate their research

SOFTWARE

- Development of PASSCAL software to facilitate processing, archiving and visualization of data

The general Schema

Pre-Experiment

IDEA – MOTIVATION OF STUDY

- Pre-proposal

LOGISTICS

- Experiment design
- Time , budget
- Personnel, training and traveling
- Field work planning

Experiment

FIELD WORK

- Test of equipment
- Station Installation
- Network Service – Service of stations
- Station maintenance

During & Post Experiment

DATA MANAGEMENT -

- Data Processing, Quality Control & analysis
- Archiving – Verification
- Public availability

PASSCAL SUPPORT

Pre-Experiment

IDEA – MOTIVATION OF STUDY

- Well… here you are on your own ;)

LOGISTICS – Planning, resources, availability

- Although initial ideas are defined in proposal and previous discussions , training at PASSCAL helps when working on details

Experiment

FIELD WORK – Installation & Service

- Staff field support and user support
- Testing on equipment
- Training of personnel in the field
- First installations and QC

During & Post Experiment

DATA PROCESSING/ARCHIVING

- Training on data archiving, evaluation and completeness of your data, fully archived data sets with the Data Management Center . FULL processing FA data

All comes to: the specifics of the experiment

Type of Experiment	ACTIVE SOURCE	PASSIVE SOURCE
Permitting	Usually done with even a year in advance	Recognition trip to the area (at least one before)
Site Identification and setting	Depending on vault type, Access, proximity to roads, distance, road, material needed , etc	
Number of Instruments	100's, max pool (10's/ day/team)	10's 100's max pool (2-3/ day/team)
Duration of experiment	Usually in the order of days/week	Usually in the order of months, year (s)
Geographical location	Location, Terrain, Spacing, transportation, total area to cover	

LOGISTICS – Planning, resources, availability

- Although initial ideas are defined in proposal and previous discussions , training at PASSCAL helps when working on details

Availability of Instrumentation

Exp Number	Experiment Name	Nov-10		Dec-10		Jan-11		Feb-11		Mar-11		Apr-11		May-11		Jun-11		Jul-11		Aug-11		Sep-11		Oct-11		Nov-11	
200609	CAFE/UW	7	7	7																							
200816	SIEDCAR/UTA	5	5	5	5																						
200910	NE-NV BB/Stanford	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
201028	Basin and Range Normal Faults	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33
201038	SESAME/Brown (AKA SEAM)	6	6	6	6	6	6	6	6	6	6	6	6	6	46	46	46	46	46	46	46	46	46	46	46	46	46
201055	PBO	1	1	1																							
201102	W Idaho Shear Zone BB/UF													87	87	87	87	87	87	87	87	87	87	87	87	87	87
201116	SPREE									83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83	83
	Committed	102	102	102	94	89	89	89	89	172	172	172	172	259	299	299	299	299	299	299	299	299	299	299	299	299	299

Sensors Flexible Array

Exp Number	Experiment Name	Nov-10		Dec-10		Jan-11		Feb-11		Mar-11		Apr-11		May-11		Jun-11		Jul-11		Aug-11		Sep-11		Oct-11		Nov-11	
200617	PIRE/UAF	2	2	2																							
200904	PICASSO/Rice	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
200905	Guyot/UAF	9	9	9	9	9	9	9	9	9	9	9	9	9													
201015	San Jacinto/UCSD	10	10	10	10	10	10	10	10	10	10	10	10	10	10												
201056	Whillans Ice Stream	17	17	17	17	17	17	17	17	17	17	17	17	17													
201065	SDA	3	3	3	3	3	3	3	3	3	3	3	3	3	3												
	Committed	46	46	46	44	44	44	44	44	44	44	44	44	44	18	5	5	5	5	5	5	5	5	5	5	5	5

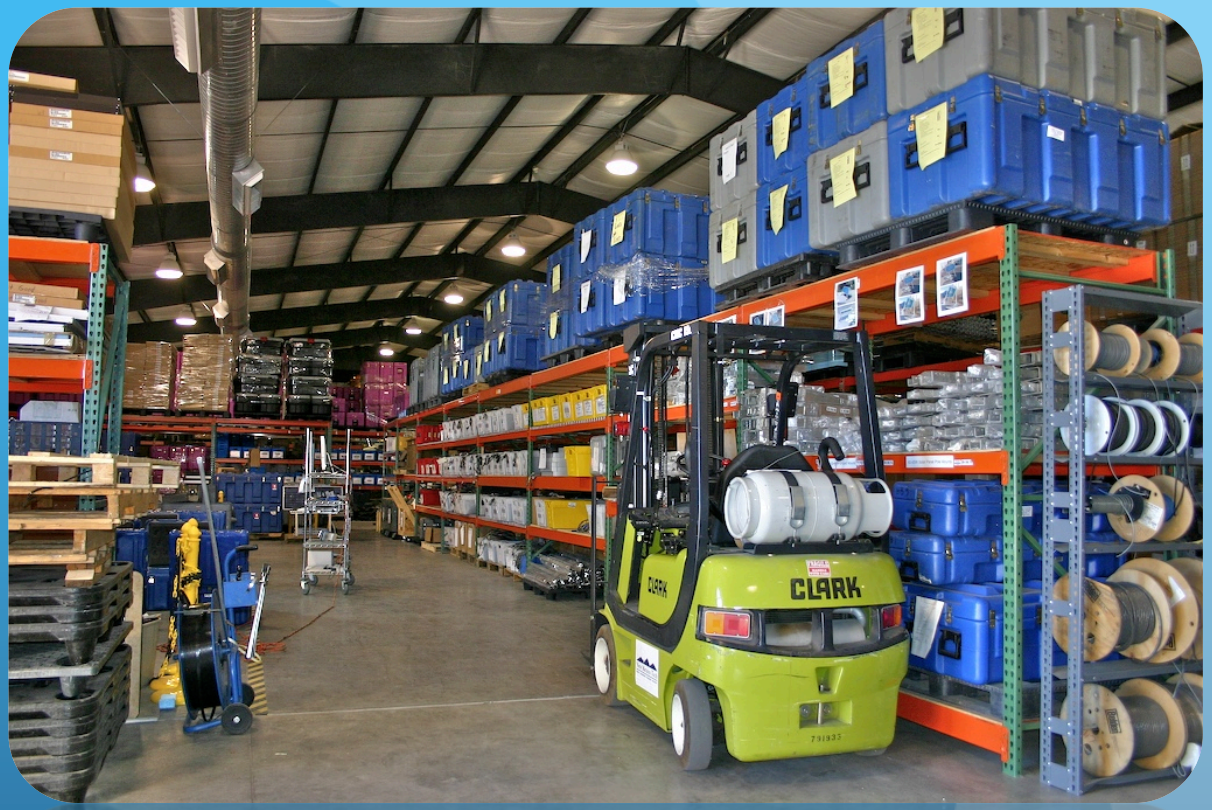
DAS only

TRAINING AT PASSCAL Instrument Center

Plan for a couple of days to cover basics on how to run a typical experiment.

- Firs day:
  - Overview from the PI
  - Discussion of proposed logistics
  - Introduction or review of project
  - instrumentation
  - Practice site installation.

- The second day:
  - Station servicing and demobilization
  - PASSCAL suite of software for data download and review
  - Introduction or review of PASSCAL preferred database and data archiving procedures.



Shipping Cost - Jackie knows best

•Calculate an estimate
http://www.passcal.nmt.edu/forms/shipping_calcs

Best Practices :
http://www.passcal.nmt.edu/content/shipping-best-practices

Traveling

Vaccinations, tickets, visas, insurance, rentals, etc

FIELD WORK – Installation & Service

- Staff field support and user support
- Testing on equipment
- Training of personnel in the field
- First installations and QC

Testing Instrumentation & Training

Himalayan Seismotectonic, Nepal

- **Huddle Test**
  - Access equipment health
  - Test recording parameters
- **Training**
  - Provide in-field training for all participants
  - Review best practices

- Logistics
  - Controlled Source
    - Start to finish
    - Deploy and/or man field center during deployment
    - Produce field archive of raw data
    - Create gathers if time permits
  - Passive Source
    - Deploy at least during the initial phase for continued training and best practice

DATA MANAGEMENT

- Training on data archiving, evaluation and completeness of your data, fully archived data sets with the Data Management Center

In General: what to keep in mind?

Expect the best, plan for the worst, and prepare to be surprised." *Denis Waitle*

PEOPLE

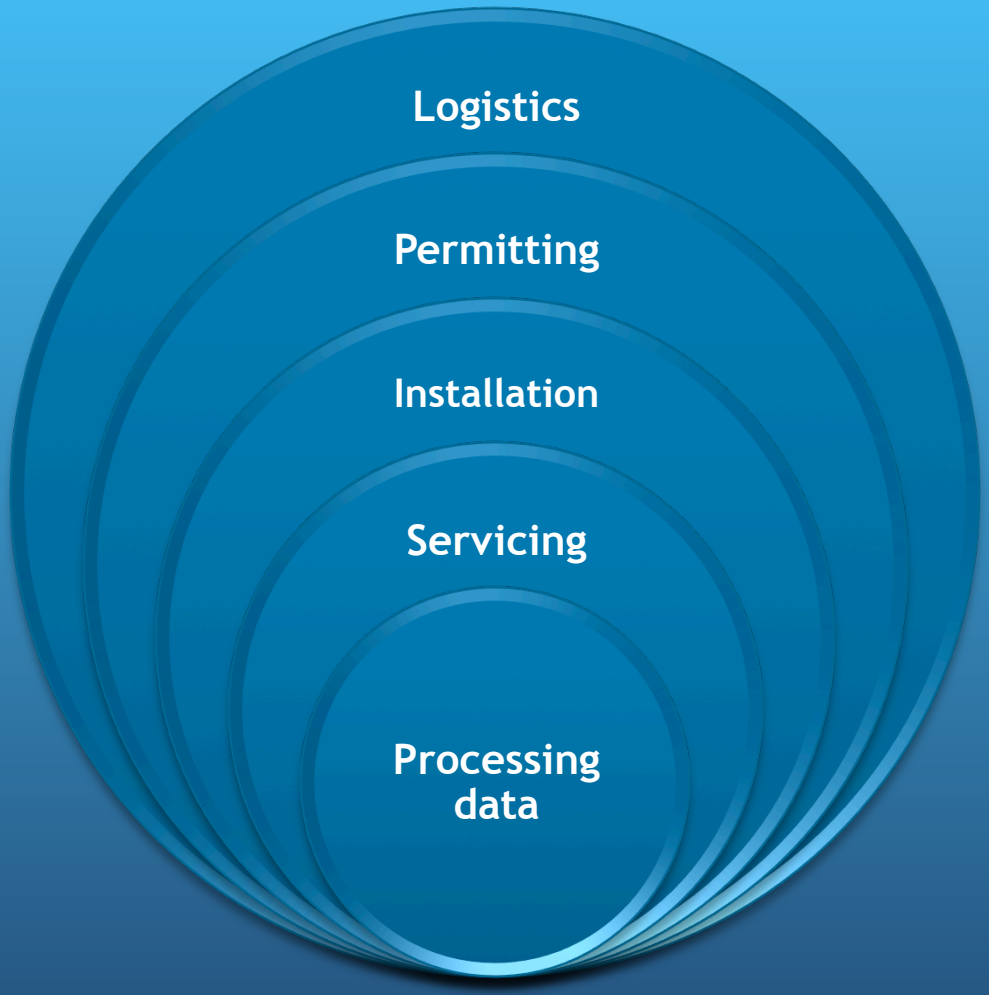
TIME

BUDGET

The UNEXPECTED FACTOR

1) PEOPLE


TEAMWORK


Logistics
Permitting
Installation
Servicing
Processing data

2) Time

Availability of Instrumentation

- Waiting list, funding

Training of personnel at PASSCAL

Experiment Specifics

Field (permitting/site/huddle, installation servicing)

Planning for the unexpected

- Shipping, Customs troubles, weather, illness, travel, etc

BUDGET- Not so simple

Instrumentation Shipping Cost & related

- Customs, international fees, storage, returning/replacement of equipment

Field Work

- Number PIC and other personnel involved, tools, materials, vault costs, unexpected expenses

Traveling

- Paper work, food, hotels, vaccination, visa costs, car rental, ER, accidents & insurances, general transportation, airline tickets, etc

Data Archiving

- Budget for grad students/archiver to process-archive data

Planning for the **unexpected**…
Sometimes you have to improvise

Thank you