

I. Welcome

A. where is John Vande Castle and the video projector?

II. Logistics

A. handout

B. lunch & dinner here... at 6 PM

III. NSF Report

A. Hayden - my info limited to 31 July and before

B. IT-squared

1) went to CISE - (41% increase)

2) ecosystems are one of the demonstration technologies for information technology

3) need to pair-up with computer scientists to tap this money

4) no guarantees of money

C. Biocomplexity

1) Colwell put on table

a) to understand cholera need to know about lots of things - ocean currents etc.

2) will be 50M (25M internal, 25M in budget)

3) concern in foundation that it looked too much like support mechanism for LTERs....

a) what about engineering and social sciences?

b) pushed for naming it "Complexity"

1> long history of support in this area (e.g., Santa Fe Institute)

2> emergent properties of systems

4) has been merging of concepts

5) being vectored towards systems that are already defined

a) can do box an arrow diagram

b) focus on dynamical properties

1> aberrant behavior

2> emergent properties

6) successful proposals will be cross disciplinary

a) most likely bio/geo partnerships

b) but human systems proposals would be welcome

7) not clear exactly how money will be spent

a) may be done all as Standard Grants

b) with 500K per year for 5 years - not many awards

c) still not finalized as to how money will be spent - so number will depend on out-year support

8) get copies of journal "Complexity" from Santa Fe Institute

9) comment from Collins

a) did make continuing awards for existing complexity activities

b) still not finalized on 50M but may be leaning towards continuing awards

10) what can we do?

a) get materials from Santa Fe Institute to circulate to network

D. NEON

1) in 2001 budget request

2) model is \$5M for 20 places for infrastructure

a) focus on infrastructure, not operating funds

3) operations budget probably 500K or so per year

a) \$10M per year operations money

4) consortium of field facilities

a) high intensity

1> lots of variables measured simultaneously

b) less intensive field locations

1> affiliated sites

2> extensive more than intensive

c) challenge - how to partner up

1> lots of work to be done putting these concepts together

- 5) some at NSF view NEON as centers where only one player would get resources
 - a) hard to build partnership based on that!
- 6) Collins
 - a) working on workshops
 - 1> what can NEON do - conceptual workshops
 - |> replicated set of workshops
 - |> models for how NEON might work
 - 2> how to implement NEON
 - |> technology based - Michener likely to run
 - |> what will be needed
 - a: similar to synthesis center
- 7) need to make sure we bring our experience of how to get scientists and institutions to work together to the table in a forceful manner
- 8) field stations are a good way to keep engaged people teaching at small colleges - wider institutional base
- 9) will be big activity \$100M infrastructure plus \$10-20M operating
 - a) large investment!
 - b) BIO also has to commit to supporting research in this area
 - 1> GEO, OPP have been very supportive
- 10) Collins
 - a) may be changes in number of consortia funded - may fund fewer at higher amounts for infrastructure and operations
- 11) will need to partner up LTER sites....
- 12) discussion
 - a) confusion of degree that NEON will be geographically vs theme based
 - 1> still not defined - probably a combination of the two...
 - |> themes often regional
 - |> some regionality, but could be overlap
 - |> some institutions could be part of more than one region
 - b) Collins - think in terms of conceptual area
 - 1> some will be more geographically bounded than others
 - 2> still need to be PLACES used by consortium and outsiders
 - c) could have additional funding for cross-site research
 - d) not much documentation on paper at this point
 - e) striking how difficult it is to grasp... Mary has been looking for models of what this might be...
 - 1> workshops will be important - PARTICIPATE!
 - 2> need outstanding proposals
 - |> announcements always have loose ends
 - f) interest spans more than just ecosystems - all field research
 - 1> including systematics
 - g) anything from preventing international component
 - 1> can't write award to foreign institution
 - h) when will workshops be
 - 1> January for conceptual
 - 2> Technology workshop about 4 weeks after
- 13) and Biodiversity Observing Network
 - a) can't be "stamp collecting" (Collwell)
 - b) need to get at questions of dynamics
 - c) infrastructure for repeated measurements
 - 1> long term funding for systematics
 - d) BON now being placed inside NEON
 - e) research on biodiversity will have to be part of NEON
 - f) is BON gone?
 - 1> name is gone for sure
 - 2> trying to broaden discussion within foundation and draw distinctions from NEON
 - 3> concerned that if BON is not established soon, it will be hard to make it a component of NEON

4> NEON needs to be something other than LTER-bigger

5> BON and NEON mixed together in workshop reports

6> 3rd BON workshop held by systematists

|> helped define

7> 4th workshop - Parmenter - helping develop distinctions

8> don't want BON to threaten NEON.....

g) problems arose because BON was something we could do when NEON was in far future, but then NEON moved forward several years very quickly - leading to confusion

h) may end up Biodiversity Dynamics Research Groups.....

i) important to get the two major parts of DEB talking (ecology, systematics) - this program has been helpful

j) questions

1> is it unlikely before NEON?

|> first had been told can't do it after fourth workshop

|> now marshalling support for moving ahead

|> still needs to get past front office

2> timeframe

|> classic last minute time frame

3> cross site competition for this fall?

|> working on program announcement

|> will go out once we know how much money we will have to spend

a: concern about hits in House markup

b: maybe looking a bit better now

|> if funds are there, our plan is to do cross-site competition

4> supplement for all sci meeting

|> could it be done as individual supplements with REU?

|> processing one supplement is more efficient than 21...

|> like to work similar to T1 supplements

14) NEON still needs to be approved by Congress

a) scott (now offline) can't be involved in anything like that

b) but we do need to make sure Congress understands value in NEON

E. Leadership change - Terry Yates coming in Jan.

1) we need to give him our support there

2) need to be thinking about who could follow Terry further down the line

a) not too early to start thinking about that, especially if Terry only stays there one year

b) would be good to have some gender balance

3) some thoughts of moving to permanent division director due to challenges in recruiting

4) need program officer in Ecological Studies (starting today!)

IV. Election for Executive Committee

A. Ray Smith 3-year term is up

B. asked for nominees

1) Shaver

C. currently

1) Porter

2) Burke

3) Robertson

4) Kratz

D. just had good interactive meeting using videoconferencing technology

E. Feb 17-18 or 18-19 next meeting

1) try to keep Phil Taylor (OCE) in loop for coastal LTERs

2) also Polly Penhale

F. Shaver unanimously elected

V. Budget Discussion for All-Sci Meeting

A. critical issue is travel budgets for sites...

B. historical - last meeting in 1993

1) previously in Estes part, stand alone

2) 4 and 5 day meetings

3) 550 participants, 100 supported by NSF - rest by sites
C. this time, add on to ESA Meeting - guessing about 600-800 people

- 1) 3 day meeting - shorter
- 2) Bob Parmenter and Bob Waide program chairs
 - a) will need help

D. Need NSF supplement request

- 1) can bring about 50 people off of existing funds
- 2) also have 47K for coordinating committee meetings
 - a) will be contracted with ESA for registration
- 3) supplement needed for 200 through 400 people
 - a) guestimate food at \$25 per day for 4 days
 - b) \$55 per day for lodging - > 220 per person total
 - c) airfare averages \$300
 - 1> If you buy far enough ahead of time
 - d) estimate \$620 per person
- 4) can be done on \$ or number of people
 - a) it will cost more to get some people to meeting
 - b) EXEC discussed zoned model combined with supplement model
 - 1> supplements for far-flung investigators
 - 2> proposals evaluated by EXEC

E. comments

- 1) should we be spending more on International and less on domestic (many of us are going to ESA anyway)?
 - a) we are working on trying to get additional supplements from INT
 - 1> most successes in developing rather than developed countries
 - 2> INT policies are mostly against paying for travel by foreigners to come to US
 - b) you can also write proposals to INT
 - c) may also want to take international visitors to your sites
- 2) could you ask sites to just tell you costs for X people
 - a) then adjust X
- 3) constraint: need to bring a certain number of graduate students
- 4) timing - lets give numbers on 200K in supplement based on existing estimates
 - a) can he pay for costs other than participant support costs?
 - b) may be easier to fund more balanced proposal
- 5) some sites may choose to front load requests with people far away to increase funding to site
 - a) will need to depend on integrity and fairness of sites
 - b) please don't weight things in your favor
- 6) tagged to ESA, but most of us would be going to ESA, so want to focus on bringing in folks who would not normally be there - students etc.
- 7) what was graduate student to PI ratio at last ASM?
 - a) 50:50 split?
- 8) total number model would be best for coastal sites
 - a) not likely to come to ESA without support
 - b) we want to leave decisions up to sites
- 9) motion
 - a) go with per capita and have NET estimate per site costs
 - b) discussion
 - 1> many sites KNOW they will drive - suggest factoring that in
 - 2> suggest breaking sites into driving vs flying
 - 3> no fundamental conflict - sites should do it based on way they really expect to travel
 - 4> how many sites plan on driving
 - 5> suggest that NET do calculations
 - c) motion passed
 - d) which sites are likely to drive
 - 1> AND
 - 2> OR

3> NWT

10) how many graduate students part of mix?

- a) grad students estimate 2-10 students per site would participate
 - 1> current vs past? - currently registered students....
 - b) in 1993, two per site were funded
 - c) might be wise just to recommend bringing as many graduate students as possible
 - 1> PIE just has 3, some sites have 56
 - d) suggest appeal to NET on numbers
 - e) of bodies sites will bring, we should specify minimum number of students
 - 1> 50% of people paid by NET should be graduate students
 - f) why should we do this? don't we trust ourselves?
 - 1> strengthens our hand with Scott if we have commitment
 - g) suggest working with actual numbers
 - h) say we will have at least 5 per site

11) motion: sites bring at least 5 per site

- a) motion passed

F. how do we distribute money

- 1) NET does everything - travel reservations and reimbursements
 - a) can't deal with complicated travel changes - only early reservations would be allowed
- 2) authorize each site to spend X dollars and sites invoice NET in single invoice
 - a) down side is need to see if UNM will do
 - b) will need individual receipts (not for food, but other stuff)
- 3) have sites do individual supplement proposals to Scott for X dollars
 - a) discussion
 - 1> Scott does not like option 3!
 - |> adding complexity adds delays
 - |> mechanics of timing issue
- 4) discussion
 - a) issues of indirect costs
 - 1> participant support costs would not have overhead
 - b) prefer option 1 - paperwork at my institution is a barrier
 - c) recommend letting NET do it
 - 1> way for NET to demonstrate value
- 5) motion - option 1
 - a) passed
- 6) each site will need to give us list of people who are authorized to arrange travel through the NET money

G. Registration fees

- 1) NET may not be able to pay for mixers
- 2) cash bar setups about \$5,000
- 3) won't be able to pay for it out of grant, so need registration fee
- 4) could be \$10-\$20.... or more if mixers are more expensive
- 5) discussion
 - a) what about outside sponsors for mixers?
 - 1> SUN?, ESRI?
 - 2> need to follow up on this
 - 3> exhibitors
 - b) want to have two-tiered system for inside and outside LTER
 - c) could charge larger registration fee, then reimburse
 - 1> actually bring in money

VI. Spring Planning Meetings for pre-ASM workshops

- A. money available for planning workshops for ASM
- B. 74 workshops
- C. need 15-20 simultaneous workshops for number of people
- D. not too much organization to overall structure

1) clear goals

- 2) major gaps
 - a) big picture workshops
 - 1> e.g. synthesis activity
- E. Committee on Scientific Initiatives
 - 1) suggested ASM important place to jump-start these activities
- F. suggested workshops
 - 1) target some specific projects
 - 2) provide money for planned workshops
 - 3) money for speaker travel
- G. NET budget
 - 1) front-loaded participant support costs
 - 2) so have \$60K and follow up money of same amount in 2001 and 2002
 - 3) suggest having pre ASM planning meetings and post-ASM followup meetings out of that \$60K pot
- H. discussion
 - 1) think this is a very good idea
 - a) bring groups together for follow-up writing etc.
 - 2) model
 - a) pre snowbird meeting of all workshop leaders?
 - 1> no, want to first go through step of identifying some "big picture" activities
 - 2> follow up with request for funds from NET to have meeting on "Big Picture"
 - |> then separate meetings for individual topics
 - 3) what is workshop?
 - a) no imposed definition
 - b) could be speakers followed by discussion
 - c) or just discussion
 - 4) want to let audience know ahead of time so attendees can know what they are prepared for
 - 5) overall agenda
 - a) focused plenary sessions
 - 1> NSF perspective
 - 2> LTER Challenges (Risser)
 - 3> LTER: Knowledge for 21st Century (Gosz)
 - 4> Additional Plenary talks by 5 very good speakers
 - |> probably from outside LTER
 - b) afternoon
 - 1> focused plenaries
 - 2> concurrent workshops (2 hours)
 - |> not necessarily linked to plenaries
 - 6) discussion
 - a) have not heard focus for All-Sci. Meeting
 - 1> should be restricted to enhancing LTERs, not getting folks together for preproposal writing
 - 2> concern about too much focus on products
 - 3> need to focus on opportunities for LTERs....
 - b) need clarification - are we conceptually limited to not have people together to write proposals?
 - 1> NO - perfectly legitimate to have sessions that lead to proposal writing
 - c) can we identify major areas for plenary talks?
 - 1> who should identify? CC, EXEC?
 - |> have tried in past, but got some dejection
 - d) some workshops need pre-meetings, some don't
 - e) could focus on things that LTER was set up to do and new directions
 - 1> social dimensions is new direction
 - 2> landscape processes
 - 3> long term responses to climatic trends
 - 4> coalescing areas
 - f) would like to see "straw man" list of critical areas
 - a) would like to see some "big thinkers" from outside make

critical reviews of LTER

1> what about

|> Risser

|> Colwell

2> want someone closer to science

|> problem - don't want to go inside...

|> don't want someone hostile

h) really talking only about 3 additional plenaries

1> biodiversity

i) want volunteers for broader steering committee

1> need sifting and winowing of workshops

2> other areas need arm twisting to fill gaps

|> have been trying to fill

|> obvious gaps

a: aquatic systems

1: no coastal, stream etc.

I. OK to spend money on pre-planning workshops

1) EXEC will make final decisions on \$

VII. Planning for NEON

A. introduction

1) biggest opportunity on our horizon - we need to be prepared!

2) NSF will host two workshops aimed at NEON...

B. workshops

1) can we recommend particular people for NSF workshops?

a) can give them list, but they choose

2) want to make sure that we put forward names

3) how do we feel about center vs consortia?

a) want access to more PLACES - field stations are good partners for regionalization

4) only 3 sites funded under microbial observatories

a) some were funded (AND, CDR), but not linked to LTER

5) need to write to announcement, not what we would like

6) what can we do internally to help ourselves?

a) could do some work on identifying potential partners

1> resources for that would be useful

2> sites may be doing this on their own

7) like with BON, takes fair investment. Need to be sure you don't end up with disappointed partners if the rules change

a) critical to be honest from the beginning

8) if point is to make sure we are at the table, NSF has

usually done a good job

a) need to be cautious about playing too active a role up front

b) Scott will do excellent job

9) at some point we need to come to grips with boundaries between regional NEON sites

a) can we pull together consortium level groups?

b) would be nice to see some models...

c) would be good to have meetings of sites working on consortia to exchange ideas and information

1> but ultimately will need to compete among ourselves and with outside

10) commonality of infrastructure? what would be in common?

a) hydrologic cycle in region

1> dominant forces vary

2> some groundwater critical, or ET

3> instrumentation may vary

b) common instrumentation at all sites?

1> will be some differences, but commonalities will pertain to a group of sites rather than all of NEON

2> can buy infrastructure with this money

|> off the shelf instrumentation into existing institutions

|> putting instruments in field (permanent features)

C. suggest meeting for representatives of prospective consortia

1) cross region questions

- 2) cross site follow on should be cross regional
- 3) discussion
 - a) can't muck with NSF process - participate upon request
 - b) but on our own, need to do our own preparations
 - 1> sites need to build models for consortia and share them
 - c) should we wait for NSF workshops to be done?
- 4) could do it as regionalization workshop
 - a) de-link from NEON
- 5) discussion
 - a) NEON could be biome-based rather than region-based
 - 1> e.g., NE forest sites
 - b) focus will be on meeting needs of all field biology
 - 1> will be governing body - projects will need to organize governance
 - c) will it be consortium of sites within each project?
 - 1> has not been determined
 - 2> but centralized model not likely to be successful
 - d) don't think we can avoid risk
 - 1> waiting too long is dangerous
 - e) focus on regional scale science
 - 1> regardless of how announcement looks, all sites interested in getting involved
 - 2> want to share thoughts - especially given smaller number of projects
- 6) action item
 - a) try to stimulate workshop Nov-Jan. to build this workshop
 - 1> want sooner rather than later

D. OBFS interactions

- 1) NET supplement to help work with OBFS
 - a) help them get prepared for NEON
 - b) help with LTER regionalization
- 2) will hire person in NET to help with outreach on IM etc. with OBFS
 - a) on road
 - b) developing databases that parallel LTER databases
- 3) NCEAS and KU supplements
 - a) KU - species analyst software allows searching major museums
 - 1> KDI also directed to same area
 - 2> focus on making museum data available
 - b) NCEAS - buying better connectivity
- 4) comments
 - a) LTERs need to have relationships with museums
 - 1> want to reduce competitiveness between museums
 - b) OBFS interested
 - 1> stations interested in building connectivity and information management infrastructures
 - c) many LTER sites are OBFS sites - at \$75 per year, why not more!
 - d) where are OBFS sites?
 - 1> see <http://www.obfs.org>

E. KDI

- 1) KU was funded to help link museums
- 2) KDI - LTER focus on linking ecological data
 - a) focus on tools for mining ecological data
 - b) excellent reviews and were funded
- 3) meeting with KU group to see what we can do to share resources
- 4) Partnership for Biodiversity Informatics
 - a) KU, NCEAS, LTER

F. congressional activities

- 1) opportunities to organize efforts to help support president's budget request for NSF
 - a) scientists have typically done a poor job of this

- b) entirely legal and appropriate
 - 1> not shooting for specific language
- 2) can also support "plus ups" in specific areas
- 3) VA-HUD is NSF funding source
- 4) congress.nw.cd.us/rollcall
- 5) congress.nw.dc.us/rollcall/congdir.html
- 6) aibs FYI site also very useful
- 7) do you know if your Universities belong to Science Coalition
 - a) should know
 - b) focus on fundamental science at universities
- 8) can't use NSF \$ to do this
- 9) discussion
 - a) LTER \$60K coming out of Forest Service local budgets, not national Forest Service
 - 1> big change
 - 2> change from MOU
 - ↳ rewriting in 2000
 - 3> Mary Clutter had helped in getting that reversed this year
 - b) this should be top item for coming FEB. EXEC meeting....
 - c) Nadine Lin at ESA office very helpful with lobbying materials

VIII. Site Hosts for CC Meetings

A. 2001

- 1) proposed
 - a) Ohio State (MCM)
 - 1> Byrd Polar Center
 - b) Fall
 - 1> Niwot Ridge - could be held mid-September, but not October
 - 2> PIE (fall) would be held at Woods Hole or Gloucester
 - c) spring
 - 1> SEV
- 2) decision
 - a) CAP (SPRING)
 - b) PLUM ISLAND (FALL)

B. 2002

- 1) KBS (but only if we don't go to Ohio State) (spring)
- 2) CAP (fall)
- 3) decision
 - a) SEV (spring) (by a nose)
 - b) NWT (fall)

C. 2003

- 1) Kellogg (spring)
- 2) MCM (site TBA) (spring)
- 3) BNZ (fall)
- 4) decision
 - a) KBS (spring)
 - b) BNZ (fall)

D. scientific themes

- 1) 2001
 - a) better connections between land margin and terrestrial
 - b) terrestrial/aquatic linkages
 - c) putting more land in the land water connection
 - d) terrestrial/aquatic-coastal interactions
 - e) may want to wait until after All-Sci. Meeting
 - 1> can decide at end of All-Sci. Meeting
- 2) 2002

IX. Memorial for Tom Callahan

A. recognition at 1997 meeting

B. donations to Blandy Farm

- 1) would we like to do something specific

C. discussion

- 1) no one did more than Tom in first 10 years of LTER
- 2) many people acknowledging individually
- 3) could do historical perspective on LTER as book dedicated to

Tom

- a) useful exercise
- b) need to recruit historian
 - 1> did not need much money
 - 2> did oral histories
- c) lots of online resources (old reports etc.)
- d) could offer fellowship to graduate student to support

D. options

- 1) donations to Blandy Arboretum
- 2) develop resources from sites for specific projects (e.g., book)
- 3) would accept contributions from sites and coordinate into network gift
 - a) NET would solicit
- 4) need to keep Blandy separate from book
- 5) could contribute sites by way of LTER
- 6) Porter will check with Blandy to get amount needed for plaque and contribution
 - a) want something that acknowledges LTER's appreciation
- 7) could we support NSF award
- 8) LTSS in ESA would be better venue
 - a) LTSS already has travel award - could be named
 - b) could support travel

E. decision

- 1) find out how much needed by Blandy
- 2) work with LTSS

X. propose to ESA development of video archive of prominent ecologists

- A. material suitable for WWW sites
- B. ESA developing committee on who to interview
 - 1) Frank Golley will chair
- C. Sprott will be working on developing videos
- D. WWW site will make accessible based on topics

XI. Films

- A. developed film on international LTER and topics (now in penultimate form), need your input
- B. INT wanted something more on how to organize networks etc.

XII. INT

- A. French on for one more year
- B. want to do inventory of international contacts etc.
- C. list of potential mentors
- D. interest in Argentina and Chile
 - 1) would like to get better results in Chile....

XIII. Hubbard Brook tour

- A. Overview of HBES - Chris Eagar, USFS
 - 1) logistics
 - a) please wear your name tag...
 - b) handout available
 - c) thanks
 - 1> Tim Fahey (science topics)
 - 2> Charlie Driscoll (ditto, and field trip)
 - 3> Susan Wapner (registration)
 - 4> Peter Groffman (food)
 - 2) History
 - a) est. 1955 by USDA Forest Service - Pierce
 - 1> 3,300 ha
 - 2> N and S facing slopes
 - b) 1963 - Ecosystem study - Lichens, Boorman, Pierce, Johnson
 - 1> hydrologic-element cycle interactions
 - 2> focus on structure and function of northern hardwoods
 - 3> quantify hydrologic cycle
 - 4> evaluate short and long term impacts
 - 5> biochemistry, hydrology
 - 6> link process level with regional and national

3) maps

a) 6 watersheds

1> #6 long term biogeochemical reference

2> #2 experimental watershed

b) mirror lake

4) original experiment

a) clear felling, leave in place 1965, 1966

1> herbicided in following years

5) 1972 progressive strip cuts up the hill

a) with buffer strip

6) 1983-1984 whole tree harvest (watershed 5)

a) removed 95% of aboveground

7) tours of

a) R.S. Pierce Laboratory

b) Guaging Station at watershed #6

c) Freeze plot

d) watershed 2

e) mirror lake

f)