General Information

SeaTech manufactures many kinds of small craft, including dinghies, canoes, kayaks, inflatable rafts, small sail boats (under 30 feet in length), and outboard ski boats. These boats have traditionally been made out of aluminum, wood and/or fiberglass, but recently SeaTech has led the way in developing newer hull materials.

One important characteristic of boat materials is protective coatings. Most people who own large boats (like the larger sail boats that SeaTech manufactures) choose to leave their boats moored in water year round, often in salt water. Boats moored in salt water accumulate undesirable algae and barnacle growth. Therefore, hull materials and hull paints which can retard salt water corrosion or 'fouling' would be very desirable to boat owners and would have an advantage in this marketplace.

SeaTech has been trying to improve the anti-fouling quality of the hulls of its larger boats by developing better hull materials. A few engineers at SeaTech have suggested that anti-fouling paints could be developed in addition to, or perhaps even instead of, anti-fouling materials. Anti fouling paints might prove to be cheaper and easier to develop than materials that are equally anti fouling. Furthermore, the paints could be sold to other boat and ship manufacturers that would open up another market for SeaTech.

Pat Peterson is one of SeaTech's senior engineers in materials development, which is an area within the research and development department. While trying to improve the anti-fouling properties of SeaTech's special fiberglass, Pat has come up with a crude formula for how to design an extremely effective anti-fouling paint. Pat wishes to pursue further research and development on this anti-fouling paint. In fact, Pat would like to make it a full-time project separate from the materials project on which Pat is currently working.

SeaTech's research and development department has a history of entrepreneurial spirit uncommon for other boat manufacturers. Senior engineers are sometimes allowed to work full time on pet projects. The most promising projects have even been funded and staffed before having demonstrated profit potential. It is the responsibility of the head of R&D to approve and to arrange funding for such new projects that are brought forth by senior engineers. In past projects, the senior engineer has been removed from some or (rarely) all other responsibilities to head up a small staff of junior engineers and assistants who work in a laboratory designated for the project.

Tracy Jacobsen heads up the R&D department. In addition to Pat Peterson, R&D has 6 other senior engineers, 20 junior engineers, 30 laboratory and drafting assistants, and 10 departmental staff assistants. Presently, funding is tighter than usual, and upper management is not enthusiastic about starting new projects based solely on an entrepreneurial whim unless they are confident that the projects can show profits relatively quickly.

Confidential Information for Tracy Jacobsen (Role 2 & Role 3)

While working on new resin variants for fiberglass that have especially strong anti-fouling properties, Pat Peterson and Pat's team of engineers discovered a new, non-toxic chemical that repels most microscopic salt water sea life from anchoring on to the fiberglass. Unfortunately, this new chemical also slightly weakens the bonding qualities of the resin. Any fiberglass produced with it would be considered insufficiently strong for SeaTech hull materials. With further development, Pat's team of engineers might be able to incorporate it into an even stronger fiberglass. You have reason to believe that this could be accomplished and the new fiberglass tested within a year. Given your goal to improve the anti-fouling and strength qualities of SeaTech hull materials, you want Pat's team to continue working on this project.

Pat, however, has a different idea. Pat believes the new anti-fouling chemical could be more successfully incorporated into a hull paint, rather than into the fiberglass itself. In fact, Pat believes in this paint so much that Pat has requested to start up the hull paint development as a full blown project separate from Pat's fiberglass project. Pat has even gone so far as to say that this paint could make obsolete anti-fouling fiberglass. Given the preliminary nature of the research on the new anti- fouling chemical, and SeaTech's unfamiliarity with paints, you find Pat's statement premature, if not outrageous. Still, you are a thorough and open-minded person, and so you talked to Randy Quinn, one of the junior engineers on Pat's team. Randy is less optimistic about being able to successfully apply the anti-fouling chemical to paint. Randy thinks it will take up to a year to fully test such a paint, and even then Randy believes there is only a 30% chance it will work. Those odds are too low for this much of an investment.

There are other reasons not to allow Pat's paint project to proceed. For one thing, SeaTech has never made its own hull coatings or paints of any kind. It has always bought coatings from outside suppliers. Basically, you and others in upper level management consider 'paints' outside SeaTech's product strategy. Secondly, sale of this paint to wholesale boat parts suppliers might hurt the competitive advantage SeaTech now enjoys in its hulls. That is, SeaTech boats are already known to have the most anti-fouling hulls of any boats. If this paint makes it to other boat manufacturers, or even to boat owners who could paint their own hulls, other manufacturers' boats would have the same anti-fouling quality as SeaTech's. Thirdly, such an anti-fouling paint would make moot SeaTech's efforts at improving the anti-fouling qualities of its materials. Finally, because funding is short these days at SeaTech, you can't afford to fund that many new projects. You must be somewhat selective in which new projects you fund. Also, all your engineers, lab assistants, and general staff are already pretty busy as it is; you can't afford to add too many new responsibilities to their already burdensome workload.

Nevertheless, you find yourself in a dilemma. You don't really want Pat to start this project, but certain entrepreneurial norms and precedents push you to consider Pat's ideas and giving the project some kind of start, if only a token start. Specifically, many of past developmental projects began with an engineer tinkering on company time and then stumbling across some idea for a new application or offshoot of a research project. Often, the engineer then makes a request of the head of R&D to receive the time, funds, staff, and equipment to conduct extensive research and testing of the new idea. Such requests are always considered and usually at least partially granted as part of a company policy of encouraging entrepreneurial activities. To completely deny Pat's request would be to go against this policy and to discourage entrepreneurial activity.

Therefore, for the five issues that Pat will bring up, here is how you feel about each issue:

(1) STAFF

Pat will probably want a bigger staff than you feel is necessary. New projects require staffs to help with the research and testing. But, junior engineers and lab assistants are in short supply. For appearances sake, you may want to give Pat at least somebody, but you definitely do not want to pull too many people from other, more important projects. Therefore, your preference is to give Pat one lab assistant and no junior engineers. This issue is the most important issue to you.

(2) LAB ACCESS

Pat, and every other engineer, wants to use the new high-tech laboratory at SeaTech. This lab is a "techie's" dream as it makes conducting research considerably easier. However, with all of SeaTech's engineers and projects, the lab is already over-booked. Other, more important projects should have priority in this lab, and you don't want to put additional, competing demands on the lab. Five days per month use of the lab is about the most you wish to allow Pat. You suspect Pat may ask for more. This is the second most important issue for you. Also, by giving Pat only token access to the lab, you hurt Pat's chances of succeeding on the project without giving the appearance of denying Pat's requests and contradicting entrepreneurial policy.

(3) HIRING ANDTRAINING

Your department is in the process of hiring a new engineer. You have already designated that the new engineer will begin by working in materials. Therefore, you wish to seek Pat's advice on who should be placed into the materials project. You want to pick Sara Jackson from the short list of candidates, and have Pat train her in materials (not paints). The advantage of having Pat train her is that Pat will train her in what Pat knows, and consequently she will acquire some of Pat's unique and irreplaceable knowledge. Although you like Pat, it would be reassuring to know that Pat isn't so irreplaceable in case Pat's paint project doesn't work out and Pat becomes disgruntled. This issue is the third most important to you.

(4) TIME

Pat needs time at work away from other responsibilities to pursue the paint project. Although Pat's knowledge and skills were instrumental in the development of the anti-fouling material so far, you believe that other engineers could take over the project with only minimal input from Pat. Thus, Pat's presence on that project isn't that important. In fact, this is the second to least important issue. Nevertheless, you still prefer for Pat to spend as much time as possible on the materials project and as little time as possible on Pat's proposed paint project.

(5) FUNDING

Pat needs funding to buy research supplies and developmental materials and chemicals. If Pat gets the go ahead for the project, whether Pat works on it full time or not, SeaTech has a policy of starting new projects with at least a minimal "Entrepreneurial Grant" of $20,000. These grants can and often are increased way beyond the $20,000 starter. This issue is the least important issue.

Your exact preferences are represented in the following table. In the table your preferences are quantified as “points” (the “pts” columns) associated with each term for each of the five issues.

STAFF	*pts*	LAB ACCESS	*pts*	HIRING / TRAINING	*pts*	TIME	*pts*	FUNDING	*pts*
1 asst/ 0 engr	30	5 days	25	Sara/25%	20	25%	15	$20,000	10
2 assts/ 0 engr	24	7 days	20	Sara/20%	16	35%	12	$35,000	8
2 assts/ 1 engr	18	9 days	15	Sara/10%	12	45%	9	$50,000	6
3 assts/ 1 engr	12	11 days	10	Other/10%	8	55%	6	$65,000	4
3 assts/ 2 engrs	6	13 days	5	Sara/5%	4	65%	3	$80,000	2
4 assts/ 2 engrs	0	15 days	0	Other/5%	0	75%	0	$95,000	0

A few notes on negotiating with your subordinate. You are the boss, but you prefer to negotiate all matters on new projects to encourage entrepreneurialism. However, you do have the authority to unilaterally decide the outcome of Pat's request. That is, you can at any point tell Pat how much time, money, staff, and access to the lab Pat will get as well as decide whom to hire and how the new engineer will be trained. You may invoke your authority to get a settlement that you think is beneficial or proper. If you do not invoke your authority but offer Pat too little, Pat has two choices: 1) Pat can take your offer, or 2) Pat may walk away from the negotiation.

Remember: Pat likes working at SeaTech and won't quit the firm over this. Also, because SeaTech owns the patent to the anti-fouling formula, Pat cannot take the formula to another firm. Nevertheless, if Pat does walk away from the negotiation, you could let the impasse stand (i.e., Pat's status quo job responsibilities remain unchanged and nobody pursues Pat's project ideas), or you could finish the negotiation alone by yourself (i.e., unilaterally decide the outcome). A unilateral decision or an impasse might not seem like such bad outcomes; after all, you wish this whole paint project idea had never come up in the first place. However, you do not want to deny and disgruntle Pat entirely because you could get a reputation for discouraging entrepreneurialism and you might make the other engineers mad at you. All things considered, however, an impasse isn't the worst alternative; it's worth about 1/2 of getting everything you want, or the equivalent of roughly 50 points in the scoring system. That is, if you do reach an impasse, you receive a score of 50 points in this negotiation. Obviously, you do not want to accept any agreement that would yield you less than 50 points.

You have two goals in this negotiation. First and most importantly, you want to give as little as possible so that this project does not interfere with business as usual. That is, in terms of the table above, you want to maximize the number of points across all issues (i.e., the sum across all issues, not necessarily the number of points on each issue). This is your major goal because most other concerns are subsumed in the point system. Second and less importantly, you want to appear fair. You are extremely worried how others will perceive you, especially regarding your reputation about encouraging

entrepreneurialism. The SeaTech grapevine will transmit the flattering and sordid details of this negotiation to important people (e.g., your boss and the other engineers).

Note: If you are assigned as Role 3, you are Maria Smith, the secretary of Tracy Jacobsen. You will help Tracy with this negotiation. You can discuss with Tracy how to proceed with the negotiation before meeting Pat Peterson for a maximum of 5 minutes, then you should participate in this three-person negotiation. If only two roles are assigned, this is a two-person negotiation between the Pat Peterson and Tracy Jacobsen.