



*Jim Chalfant*  
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*Chair of the Assembly of the Academic Senate*  
*Faculty Representative to the Regents*  
*University of California*  
*1111 Franklin Street, 12th Floor*  
*Oakland, California 94607-5200*

May 1, 2017

**SUSAN CARLSON, VICE PROVOST**  
**ACADEMIC PERSONNEL**

**Re: Systemwide Review of Draft Presidential Unmanned Aircraft System (UAS) Policy**

Dear Susan:

As you requested, I distributed for systemwide Senate review the proposed draft Presidential Unmanned Aircraft System (UAS) Policy. Eight Academic Senate divisions (UCB, UCD, UCLA, UCM, UCR, UCSC, UCSB, and UCSD) submitted comments. These comments were discussed at Academic Council's April 26, 2017 meeting. They are summarized below and attached for your reference.

We understand that the proposed revisions are intended to establish minimum standards for the use and operation of UAS and Small Unmanned Aircraft Systems (SUAS), including drones, at any UC location or as part of any University activity, to ensure safety, security, and privacy, as well as compliance with Federal Aviation Administration (FAA) laws and regulations.

Senate reviewers expressed a significant number of concerns about the policy and do not support it in its current form. Their main concerns relate to the policy's lack of clarity, its redundancy with existing federal regulations, and the extent to which it would impose inappropriate new administrative requirements on faculty, inhibiting their use of drone technologies in research and instruction.

Several Senate reviewers requested clarity about the approval authorities and approval procedures for proposed UAS and SUAS flights described in the policy, including the precise information that would be gathered in the UAS Request Form, the designated authorities who would review applications, and the criteria they would use to judge applications. One Senate division also observed that the policy is unclear about whether individuals could initiate applications with the designated systemwide authority and local authority simultaneously, and pursue an application with one after receiving a denial from the other.

Several Senate reviewers recommend that the authors redraft the policy to be less complex and restrictive. They note that the proposed policy would increase the number of required approvals and require faculty to secure two-week advance pre-approval of UAS flights from the University,

an unnecessary bureaucratic overreach that would impede research activities. They note that the policy does not recognize the UC faculty members who currently have comprehensive drone research programs and government certification to initiate flights with 48 hours' notice. They note that in certain research fields, researchers require a high level of flexibility in drone flight scheduling to allow a quick response to particular conditions. As written, the policy would hinder the ability of researchers to respond when circumstances force a change of plans.

Several reviewers noted that the policy is redundant with existing FAA regulations around pilot certification and advance flight notification, and in some cases, goes beyond those requirements. At the very least, given the existing FAA regulations, the policy should make a better case for why a systemwide UC policy is needed, the additional benefits of new UC regulations, and any possible circumstance in which UC might disallow a UAS flight that the FAA has approved.

Senate reviewers agree that the policy should be redrafted to provide a clear and streamlined path to greater use of UAS technologies for research and teaching, rather than creating new bureaucratic barriers to doing so. Reviewers recommend a simpler policy that eliminates redundancies with existing federal regulations by simply requiring UC's drone operations to be conducted according to federal, state and local regulations, and that focuses on reducing UC-specific risks.

In addition, two divisions suggested totally different approaches to the one outlined in the policy. UCD suggests that UC focus on new investments in core drone facilities, skilled personnel to provide faculty and students with training and technical assistance in the implementation of drone research programs, and campus faculty experts on with extensive drone experience to provide guidance. UCSC suggests an application process similar to that for Institutional Review Boards in which researchers would be required to complete an online training prior to conducting research projects involving UAS, and subsequently submit authorizations to the "UAS Review Board".

Reviewers also suggested including in the policy provisions specifically prohibiting the use of drones for surveillance on campus and addressing the potential for drones to contribute to noise pollution on campus.

We appreciate consideration of our comments and concerns as you revise the proposed policy. Please do not hesitate to contact me if you have further questions.

Sincerely,



Jim Chalfant, Chair  
Academic Council

Encl

Cc: Academic Council  
Policy Manager Lockwood  
Systemwide Designated UAS Authority Stark  
Senate Director Baxter  
Senate Executive Directors



320 STEPHENS HALL  
UNIVERSITY OF CALIFORNIA

April 21, 2017

JAMES CHALFANT  
Chair, Academic Council

*Subject: Draft presidential on unmanned aircraft system policy*

Dear Jim,

On April 10, 2017, the Divisional Council (DIVCO) considered the proposed policy cited in the subject line, informed by the commentary of our divisional Committee on Research (COR), which is appended in its entirety.

In addition to the specific concerns described by COR, which highlights the proposal's lack of clarity, DIVCO noted that unmanned aircraft systems (UAS) are already subject to federal and state regulation. We believe that UC policy should reference these directly, noting that the use of unmanned aircraft systems on university property is subject to these existing regulations, and then add limited, clearly defined UC provisions, as needed.

We also discussed provisions governing recreational or non-university business UAS use. We believe that, as currently proposed, these will be largely unenforceable. In addition, we are concerned that the proposed policy would serve as an impediment to a nascent body of research. Going forward, we ask that UCOP consult with faculty and other UC researchers who use UAS in their research to ensure that the next iteration of the proposal is sensitive to the research needs of the University.

Accordingly, DIVCO declined to endorse the proposal at this time.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Powell'.

Robert Powell  
Chair, Berkeley Division of the Academic Senate  
Professor of Political Science

Cc: Stuart Bale, Chair, Committee on Research  
Anita Ross, Senate Analyst, Committee on Research

April 5, 2017

**To:** Robert Powell, Chair, Berkeley Division of the Academic Senate

**Re:** COR comments on the Draft Presidential Unmanned Aircraft System Policy

As per your request, the Committee on Research (COR) has reviewed the Draft Presidential Unmanned Aircraft System (UAS) policy proposed by the Office of the President (UCOP).

Presumably, this new policy is motivated by the increasingly widespread use of ‘drones’. Drones have become affordable to the public and many carry cameras and microphones and other surveillance equipment. Privacy issues abound. Furthermore, there are obvious liability concerns associated with property damage and injury. Therefore, COR agrees that the increasing use of UAS for research, educational, and recreational purposes *does* warrant some system-wide policy.

In general, COR found the proposed policy to be appropriate in scope. However, we did identify several questions that should be considered and addressed in any final policy document.

- 1) It is not clear whether this policy applies to balloons and/or suborbital ‘sounding rockets’ of the sort used to carry scientific payloads. If so, this may create conflicts between NASA/NSF policies and the UCOP policy. If UC requires permission to use balloons and rockets, does this become a compliance issue that must be addressed at the time of proposal?
- 2) Does the proposed policy apply to international research? If so, presumably any local regulations would take priority over UC policy.
- 3) How exactly will UCOP delegate approval to the campuses? Will there be involvement of the Academic Senate or Sponsored Projects Offices?
- 4) The policy seems to imply that approval to operate UAS requires a two-week lead time. This may be overly restrictive and prevent urgent use of UAS (or rather, lead to violations of policy). The policy should allow for some *standing* permission for UAS use or a very rapid turnaround for approval.
- 5) COR found that there could be some ambiguity between professional and recreational use of UAS. UC may find itself presumed liable for any damages or infractions incurred by UC researchers who operate privately-owned drones in pursuit of research interests.
- 6) It may be prudent to establish separate policies for research/educational use (at any location) versus purely recreational use on the campuses. Recreational use on campus could be regulated by establishing designated usage zones.

COR would like to see these concerns considered and addressed in any final UCOP policy on UAS.



Stuart D. Bale  
Chair



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April 19, 2017

**Jim Chalfant**

Chair, Academic Council

**RE:** Presidential Unmanned Aircraft System (UAS) Policy

Dear Jim:

The draft Presidential UAS Policy was forwarded to all standing committees of the Davis Division. Three committees responded: Academic Freedom and Responsibility (CAFR), Research (COR), and the Faculty Executive Committee (FEC) of the College of Agricultural and Environmental Sciences.

CAFR thinks the policy is reasonable. COR, while supportive, expressed concerns about clarity and transparency in the "UAS Request Form" required by the policy. COR asks: "What information must be provided on the request form? Who will evaluate the requests and what are their credentials? What criteria are used to evaluate the requests? What are grounds for rejecting the requests? Is there an appeal process? How far in advance must the forms be submitted and how long will it take to receive a response?"

In a very careful and detailed response, the FEC of CAES argues that the proposed policy is redundant with existing Federal regulations, creates inadvertent safety risks, and requires burdensome administrative procedures. The FEC thinks the proposed policy does not "adequately articulate the problems that will be addressed by these new administrative procedures nor does it articulate the benefits that will be realized. The UC system needs to be clear about which risks are not already being mitigated by existing FAA regulations, and then must construct a policy to continually identify and reduce those risks through additional oversight."

In regards to safety, the FEC thinks the proposed UC preapproval of each flight, which could take up to two weeks, is "unnecessarily burdensome on research activities involving UAS" and is "potentially dangerous." The FEC notes that "UC approval, of which the criteria for approval are not specified in the proposed policy, cannot anticipate the immediate, local conditions for the UAS flight; only the pilot in command, after the requisite preflight briefing, can make the determination of safe flight. The proposed policy of pre-approval for flights could create an artificial sense of safety for inexperienced pilots and be counterproductive to safe operation."

From a research perspective, the FEC further points out that "the nature of agricultural, public health and environmental research means that exact times and locations of flights can seldom be anticipated in advance. Weather, crop conditions, pest and disease outbreaks, environmental events, changes with aircraft, sensing and payload delivery systems are dynamic in nature and require maximum flexibility in

flight scheduling. Often the details of one flight are dependent on the findings of previous flights, reflecting the uncertainty of research in general and, in particular, research involving UAS operations.”

Ultimately, the FEC recommends that a UC policy should “simply require that all UAS operations be conducted by properly certified pilots and in accordance with all Federal, state and local regulations,” and that UC internal record keeping of flights should not unduly burden UAS operators. In addition, the FEC believes it would be beneficial to create a UC policy that is “designed to assist faculty members in the acquisition of necessary training and full compliance with FAA guidelines and regulations,” and offers suggestions on paths UC could take to ensure high safety standards, including:

1. Establishment of “SWAT teams” of existing faculty experts on campuses with extensive drone experience, to provide 1) comments, guidance and recommendations to users and administration, and 2) to coordinate with FAA, ASSURE, and UC core drone facilities with regard to current drone safety regulations and drone safety protocols.
2. Investment in core drone facilities and accompanying skilled personnel would provide faculty and students with training and technical assistance in the implementation of drone research programs through a recharge agreement.
3. The core facilities program would also have as a major responsibility to conduct training and certification programs as well as educational programs.

Full committee responses are enclosed. The Davis Division appreciates the opportunity to comment.

Sincerely,



Rachael E. Goodhue  
Chair, Davis Division of the Academic Senate  
Professor and Chair, Agricultural and Resource Economics

Enclosed: Davis Division Committee Responses

c: Edwin M. Arevalo, Executive Director, Davis Division of the Academic Senate  
Hilary Baxter, Executive Director, Systemwide Academic Senate  
Michael LaBriola, Principal Policy Analyst, Systemwide Academic Senate

## UC Presidential Unmanned Aircraft System Policy

Comments by College of Agricultural & Environmental Sciences - FEC  
University of California, Davis

**Background.** Operation of unmanned aircraft systems is regulated by the Federal Aviation Administration (FAA), and the Federal Aviation Regulations (FAR) establish that the pilot in command is responsible for safe, legal and appropriate flight operations. The FAA certification process for pilots is based on clearly defined technical and regulatory knowledge and emphasizes responsible aeronautical decision making. The FAA maintains advance noticing and reporting requirements for flights. In this context, any new UC policy should not be duplicative of existing FAA safeguards and protocols, and should provide a clear justification for the imposition of any added administrative burden. The policy as presented, does not adequately articulate the problems that will be addressed by these new administrative procedures nor does it articulate the benefits that will be realized. The UC system needs to be clear about which risks are not already being mitigated by existing FAA regulations, and then must construct a policy to continually identify and reduce those risks through additional oversight.

The proposed UC Policy on unmanned aircraft systems is redundant with existing Federal regulations. UAS operations in general, are highly regulated at the Federal level by FAA, primarily in Part 107 (Small Unmanned Aircraft Operations) of the FAR. Furthermore, the nature of most research UAS operations, FAR Part 137 (Agricultural Aircraft Operations), FAR Part 91 (General Operations and Flight Rules) and FAR Part 61 (Certification: Pilots, Flight Instructors and Ground Instructors) prescribe conditions of operation and pilot certification. Further, UAS operations are conducted under Certificates of Authorization (COA's) from the FAA which further restrict and regulate the flight operations. Given the existing preeminence of the Federal requirements, it is not apparent that a UC policy on UAS operations is necessary.

In particular, the FAR's are explicit that flight safety, including the decision to conduct the flight, is the primary responsibility of the {remote} pilot in command. For small UAS operations, FAR 107 is explicit:

### **§107.19 Remote pilot in command.**

- (a) A *remote pilot in command* must be designated before or during the flight of the small unmanned aircraft.
- (b) The *remote pilot in command* is directly responsible for and is the final authority as to the operation of the small unmanned aircraft system.
- (c) The *remote pilot in command* must ensure that the small unmanned aircraft will pose no undue hazard to other people, other aircraft, or other property in the event of a loss of control of the aircraft for any reason.
- (d) The *remote pilot in command* must ensure that the small UAS operation complies with all applicable regulations of this chapter.
- (e) The *remote pilot in command* must have the ability to direct the small unmanned aircraft to ensure compliance with the applicable provisions of this chapter.

For UAS operations that, due to aircraft size or nature of flight, e.g., delivery of payload or release of biologically-active agents, require pilot certification at the commercial, manned aircraft rating, FAR Part 91 is explicit in the authority and responsibility of the pilot in command:

**§91.3 Responsibility and authority of the pilot in command.**

(a) The *pilot in command* of an aircraft is directly responsible for, and is the final authority as to, the operation of that aircraft.

**§91.103 Preflight action.**

Each *pilot in command* shall, before beginning a flight, become familiar with all available information concerning that flight.

**§91.7 Civil aircraft airworthiness.**

(a) No person may operate a civil aircraft unless it is in an airworthy condition.

(b) The *pilot in command* of a civil aircraft is responsible for determining whether that aircraft is in condition for safe flight. The pilot in command shall discontinue the flight when an airworthy mechanical, electrical, or structural conditions occur.

The FAR's are clear and explicit that the on-site remote pilot in command (Part 107) or pilot in command (Part 91) is responsible, at the time preceding and during flight, for the safe conduct of the flight, given local, immediate flight conditions and the airworthiness of the aircraft.

Public agency (including the University of California) UAS operations, are primarily conducted under COA's issued for specific purposes. These COA's specify public notice prior to, and subsequent reporting of, flights. For example, one current COA issued to Biological and Agricultural Engineering at U C Davis requires that a NOTAM be filed with the FAA at least 48 hours prior to flight. These NOTAM's are distributed by the FAA on public and commercial web sites and become part of the Federally-mandated preflight briefing for all manned flight operations. This information is provided graphically on maps easily accessible by the public or by telephone to FAA flight briefing stations. The NOTAM's specify the locations, altitudes and times of UAS flights. Functionally, a "block" of airspace is defined and UAS operations may proceed at the pilot in command's discretion within that airspace block and during the specified times of operation. This process is concurrent with the requirements of FAR 107 and FAR 91 that assign responsibility for flight decisions with the pilot in command, given the immediate local conditions and airworthiness of the aircraft.

The proposed requirement for a 14 day *a priori* "approval" of each flight is unnecessarily burdensome on research activities involving UAS, and it is particularly troublesome, unnecessary and potentially dangerous. The nature of agricultural, public health and environmental research means that exact times and locations of flight can seldom be anticipated in advance. Weather, crop conditions, pest and disease outbreaks, environmental events, changes with aircraft, sensing and payload delivery systems are dynamic in nature and require maximum flexibility in flight scheduling. Often the details of one flight are dependent



on the findings of previous flights, reflecting the uncertainty of research in general and, in particular, research involving UAS operations. For these reasons, UAS research operations will often file Notice to Airman (NOTAM) that covers wide areas and time blocks in order to facilitate the necessary flexibility in research while maintaining compliance with FAA regulations. Yet, the UC approval, of which the criteria for approval are not specified in the proposed policy, cannot anticipate the immediate, local conditions for the UAS flight; only the pilot in command, after the requisite preflight briefing, can make the determination of safe flight. The proposed policy of pre-approval for flights could create an artificial sense of safety for inexperienced pilots and be counterproductive to safe operation.

This policy draft appears to have been targeted to inexperienced pilots and as such does not recognize that several faculty members have rather comprehensive drone research programs and are already certified at the highest levels. A comprehensive UC policy needs to recognize the vast range of experience and certification among faculty members at campuses like UC Davis.

A UC policy should simply require that all UAS operations be conducted by properly certified pilots and in accordance with all Federal, state and local regulations. To allow for UC internal record keeping, a simple and expedient process to simultaneously submit FAA flight plans and log FAA approvals would be beneficial provided this process does not add any substantial administrative burden nor compromise the primacy of FAA regulations. The establishment of a UC Policy that is designed to assist faculty members in the acquisition of necessary training and full compliance with FAA guidelines and regulations, would be of significant benefit.

Since the FAA is the ultimate arbiter of the safety of all UAS operation, there would be no occasion when UC Policy could approve a flight that the FAA has not allowed, furthermore the policy document provides no guidance as to the conditions under which UC would disallow a UAS flight that the FAA has deemed acceptable. The intent and benefit of the proposed UC policy is therefore unclear.

Ultimately, the responsibility for safe and appropriate UAS operations rests with the pilot in command. UC system should facilitate multiple paths to high drone safety standards, which could include:

1. Establishment of "SWAT teams" of existing faculty experts on campuses with extensive drone experience, to provide: 1) comments, guidance and recommendations to users and administration, and 2) to coordinate with FAA, ASSURE, and UC core drone facilities with regard to current drone safety regulations and drone safety protocols.
2. Investment in core drone facilities and accompanying skilled personnel would provide faculty and students with training and technical assistance in the implementation of drone research programs through a recharge agreement.
3. The core facilities program would also have as a major responsibility to conduct training and certification programs as well as educational programs.

# Research

**March 28, 2017 9:08 AM**

The Committee on Research has reviewed the Unmanned Aircraft System Policy. We are generally in support of the policy, but have concerns about the “UAS Request Form”, its review, and transparency in the process. We would like to know: What information must be provided on the request form? Who will evaluate the requests and what are their credentials? What criteria are used to evaluate the requests? What are grounds for rejecting the requests? Is there an appeal process? How far in advance must the forms be submitted and how long will it take to receive a response?



OFFICE OF THE ACADEMIC SENATE  
SUSAN AMUSSEN, CHAIR  
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**APRIL 17, 2017**

**JIM CHALFANT, CHAIR, ACADEMIC COUNCIL**

**RE: PRESIDENTIAL UNMANNED AIRCRAFT SYSTEM (UAS) POLICY**

The draft *Presidential Unmanned Aircraft System (UAS) Policy* was distributed to the standing committees of the Merced Division of the Academic Senate and the school executive committees. Comments were received from the Committee on Research (CoR; appended). The remaining committees appreciated the opportunity to opine, but had no comment.

In brief, CoR supports the effort to establish minimum standards for the safe use and operation of UAS. However, the committee recommended that ambiguities in the application review and approval process be addressed. Specifically, the language of the second bullet under Section V.A. General Procedures<sup>1</sup> is unclear as to whether individuals can initiate applications with the systemwide authority and the local authority simultaneously, and whether applicants are allowed to pursue an application with one authority after receiving a denial from the other.

We thank you for the opportunity to opine.

Sincerely,

Susan Amussen, Chair  
Division Council

CC: Divisional Council  
Hilary Baxter, Executive Director, Systemwide Academic Senate  
Laura Martin, Executive Director, Merced Senate Office

Enc (2)

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<sup>1</sup> "The Systemwide Designated UAS Authority or Designated Local Authority will review and process the request and notify the applicant if the request is approved, denied, or will require further information."

# UNIVERSITY OF CALIFORNIA, MERCED

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SANTA BARBARA • SANTA CRUZ

ACADEMIC SENATE, MERCED DIVISION  
COMMITTEE ON RESEARCH  
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**March 30, 2017**

**To:** Susan Amussen, Chair, Division Council

**From:** David C. Noelle, Chair, Committee on Research (COR)

A handwritten signature in cursive script that reads "David C. Noelle".

**Re:** Systemwide Unmanned Aircraft System Policy

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At its March 22, 2017 meeting, COR reviewed the proposed systemwide unmanned aircraft system (UAS) policy. The committee supports the effort to establish minimum standards for the safe use and operation of UAS, but requests clarification on one component of the policy.

Under Section V Required Procedures, the second bullet point under A. General procedures states "The Systemwide Designated UAS Authority or Designated Local Authority will review and process the request and notify the applicant if the request is approved, denied, or will require further information." It is unclear from this statement whether individuals can initiate applications with the systemwide authority and the local authority simultaneously and whether they are allowed to pursue an application with one authority after receiving a denial from the other.

COR endorses the proposal but looks forward to receiving a clearer articulation of the application process. The committee appreciates this opportunity to opine.

cc: COR members  
Senate Office



CHAIR, ACADEMIC SENATE  
RIVERSIDE DIVISION  
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April 19, 2017

Jim Chalfant, Chair, Academic Council  
1111 Franklin Street, 12th Floor  
Oakland, CA 94607-5200

**RE: (Systemwide Senate Review) Draft Presidential Unmanned Aircraft System (UAS) Policy**

Dear Jim,

Executive Council discussed the Draft Presidential Unmanned Aircraft System (UAS) Policy and the Committee reviews on April 10, 2017. What follows is a brief summary of the Riverside Division's feedback on the Draft Policy.

The Committee on International Education and Committee on Research chose not to comment on the Draft Policy. The Committee on Faculty Welfare found the policy to be reasonable, and did not add substantive comment.

The most serious and substantive comment was provided by the Committee on Library and Information Technology (LIT). This committee expressed concerns over the implementation of the policy, and the Draft Policy's lack of discussion over what body will be charged with enforcing Systemwide regulations. Two important additional matters were also raised by LIT: 1) the possibility of drones causing noise pollution on campus, and thus disturbing students who are studying, listening to classroom lectures, or who may be sensitive to ambient noise. Addition of a noise policy would thus seem to be in order. 2) The possibility that drones might be used to conduct electronic surveillance on campus. The Committee suggests that a specific prohibition on such functions might be added to the Draft Policy.

Finally, the Committee on Academic Freedom commented that the use of drones will require an advance flight plan, and that this might restrict creative research endeavors that could take place in the immediate moment. The Committee suggests that adherence to FAA guidelines might still be accomplished by creating flight plans for a range of locations rather than a specific set of coordinates.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Dylan Rodríguez".

Dylan Rodríguez  
Professor of Ethnic Studies and Chair of the Riverside Division



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April 19, 2017

James Chalfant, Chair  
Academic Council

**Re: Draft Presidential Unmanned Aircraft System Policy – Systemwide Review**

Dear Jim,

The UC Santa Cruz Division has reviewed the draft Presidential Unmanned Aircraft System (UAS) Policy. Our Committees on Academic Freedom (CAF), Information Technology (CIT), and Research (COR) accede of our obligation to comply with aviation regulations to ensure safe operation and to reduce the University's exposure to liability. However, the Santa Cruz Division is concerned that the policy as written will inhibit faculty utilization of USA technologies in research and instruction. UAS is an emerging technology where applications have the potential to take many possible forms, and research is still needed to explore the opportunities and risk.

The respective committees are concerned that the UAS authorization process is both restrictive and complex to administer and recommend simplifying the administration process. The draft policy indicates that users will be required to complete a USA request form, file a flight authorization request, and carry the required documentation, with "delegated local authority" monitoring the use of UAS. This process seems to place a significant administrative burden on faculty regarding the practical issues of USA operation, such as multiple flights, adjusted flight paths, and other realities of UAS deployments. It would also be useful if the policy clarified if researchers will need to seek authorization from the systemwide administration or the local campus, and we recommend that local campuses have the ability to review and approve applications (and maintain a list of authorized users in a local database) for the operation of UAS.

We would like to urge the Office of the President to examine and consider the possibility of implementing an application process that is analogous to that of the standard Institutional Review Board (IRB) whereby researchers would be required to complete an online training prior to conducting research involving UAS and subsequently submit research project authorizations to the "UAS Review Board;" low-risk projects could receive a waiver while high-risk projects would undergo a full review. In general, the division advises that the draft policy be revised to facilitate and cultivate the use of UAS for research and teaching purposes.

Sincerely,

A handwritten signature in black ink, appearing to read "Ólöf Einarisdóttir".

Ólöf Einarisdóttir, Chair  
Academic Senate  
Santa Cruz Division

cc: Thorne Lay, Chair, Committee on Academic Freedom  
Brant Robertson, Chair, Committee on Information Technology  
Steve Whittaker, Chair, Committee on Research



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March 17, 2017

Professor Jim Chalfant  
Chair, Academic Senate  
University of California  
1111 Franklin Street, 12<sup>th</sup> Floor  
Oakland, California 94607-5200

SUBJECT: Proposed Unmanned Aircraft System Presidential Policy

Dear Jim:

The proposed Unmanned Aircraft System (UAS) Presidential Policy was circulated to San Diego Divisional Senate standing committees for review, and was discussed by the San Diego Divisional Senate Council at its meeting on March 6, 2017. Overall, Senate Council did not object to this policy but had strong concerns that are summarized below.

Reviewers agreed that it is sensible for the University to pursue a policy to reduce the University's exposure to liability from unauthorized flights on campus as the use of UASs increase. However, reviewers expressed concern that the policy, as written, runs the risk of limiting future research and developments in the field of robotics and associated disciplines. Specifically, UC San Diego is currently constructing an AeroDrome that will support the research activities of seven researchers, the Contextual Robotics Institute, and other affiliates. Under the current FAA rules, operating UASs in such a facility does not require additional licensing, and it is unclear how this proposed policy will affect projects in this new facility built for the specific purpose of providing a secure, enclosed area to fly and test UASs.

Concern was also expressed about the lack of clarity regarding the implementation of this policy. It was pointed out that a license from the FAA is already required to operate a UAS for research or educational purposes, and campus researchers are complying with the existing FAA rules. There was concern that the proposed policy will increase the number of required approvals and in turn hinder the ability of campus researchers to respond quickly when circumstances require that their plans change. Reviewers noted that there was no example of the proposed UAS Request Form, and that it is unclear how flight requests will be submitted and reviewed.

Additionally, there were no details about an approval time frame. There were also no details provided as to how information regarding this policy will be disseminated to students and unaffiliated individuals.

Sincerely,

A handwritten signature in cursive script, appearing to read "Kaustuv Roy".

Kaustuv Roy, Chair  
Academic Senate, San Diego Division

cc: F. Ackerman  
H. Baxter  
R. Rodriguez



April 20, 2017

Jim Chalfant  
Chair, Academic Council

**RE: Systemwide Review: Draft Presidential Unmanned Aircraft System (UAS) Policy**

Dear Jim,

The Executive Board of the UCLA Academic Senate solicited comments on the Draft Presidential Unmanned Aircraft System (UAS) Policy from the standing committees of the Senate; the individual responses from our various committees are available [online](#).

Members of the Executive Board echoed concerns raised by the various committees. Some of the concerns are as follows:

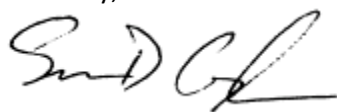
Several committees had concerns regarding the process of UC approval for using a drone. It is unclear who the designated authority is and the process for approval, including the procedure for evaluation (see Committee on Instruction and Technology (CIT) and Undergraduate Council (UgC) memos). Further, the CIT believes that the “requirement to seek university approval (when off campus) beyond what is already mandated by local and federal regulations (e.g., registration, no fly zones) seems unnecessarily onerous, and may, in fact, slow research efforts.”

The UgC “is not supportive of the proposed regulations for activities that occur off campus.” Moreover, although “the use of UAS has outpaced their regulation” the UgC “hesitate to hastily create too many levels of bureaucracy that might hamper research productivity without ample reason or justification.” The UgC also solicited feedback from the Department of Earth, Planetary, and Space Sciences (EPSS), which is included with UgC’s response.

The Graduate Council believes the impact on graduate students would make it more difficult to carry out their work.

The Executive Board appreciates the opportunity to opine. Please feel free to contact me should have any questions.

Sincerely,



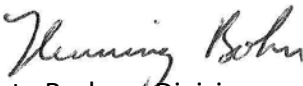
Chair, UCLA Academic Senate

cc: Hilary Baxter, Executive Director, Systemwide Academic Senate  
Leo Estrada, Immediate Past Chair, UCLA Academic Senate  
Sandra Graham, Vice Chair/Chair-Elect, UCLA Academic Senate  
Michael LaBriola, Principal Policy Analyst, Systemwide Academic Senate  
Linda Mohr, Chief Administrative Officer, UCLA Academic Senate  
Shane White, Vice Chair, Academic Council

**Academic Senate  
Santa Barbara Division**

March 21, 2017

To: James Chalfant, Chair  
Academic Council

From: Henning Bohn, Chair   
Academic Senate, Santa Barbara Division

Re: Draft Presidential Unmanned Aircraft System Policy

The Committee on Research Policy and Procedures (CRPP) and the Council on Faculty Issues and Awards (CFIA) reviewed the proposed policy on unmanned aircraft systems on behalf of the Santa Barbara Division.

From an overall policy perspective, CRPP did not find any serious flaws in the documents. As far as the Committee was able to determine, UCSB researchers already follow federal regulations, and all applicable UC guidelines, and there has been no untoward incident reported so far. Therefore, CRPP questions the basis for this bureaucratic over-reach.

To get a more informed view of the document CRPP's Chair sought out the opinions of four faculty members. One of these faculty members also put the Chair in touch with her graduate student who had been responsible for getting all relevant clearances. One faculty members did not provide any input.

The one common issue that emerged was that all people who responded complained about the extra bureaucratic burden imposed by UC. There was a sense that the restrictions placed by UC unnecessarily exceeded the federally mandated requirements.

For example, one of the groups flies a small (less than 7 pounds) drone. These drones must be flown in very calm weather, but UC takes two weeks to approve one flight. If there is any wind in the approved time window (and these wind speeds are too small to be able to predict two weeks in advance) then the drone cannot be flown at all and a new approval must be sought, which entails another two-week wait. Apparently, it is possible to get a block clearance but UC will not provide it, and faculty members are not eligible to get such clearances directly from the FAA. CFIA members shared CRPP's concerns regarding these limiting factors.

As UAVs become an important part of the research efforts of many faculty at UCSB, it is

absolutely essential that UC not throw up any additional bureaucratic barriers above and beyond those already mandated by federal regulations. Furthermore, it is not clear from the document whether existing federal guidelines already "minimize risk"?

CRPP urged that any UAV policy document must address certain fundamental concerns:

1. Analyze federal regulations to see if they already satisfy our desired level of risk tolerance. [If they do, then UC policy should merely implement those regulations.]
2. If federal guidelines allow some flexibility in the approval process, ensure that this flexibility is passed down to the local authority and onto the campus researchers. [That seems not to be the case presently.]
3. In case federal guidelines are found to be weak in some specific cases, enunciate this clearly to stakeholders and form a reasonable policy that balances risk and flexibility. [There is no such distinction or reasoning in this document.]

The complete absence of any type of summary of the existing federal guidelines in this document significantly complicates the review process. In fact, faculty who use UAVs in their research, almost uniformly remarked that one of the best ways that UC can help them deal with this bureaucracy is to have a website that brings together all relevant federal regulations in a timely manner. CRPP would like to add that without this information a proper review of the proposed policy is not practical.

CRPP also noted that UAVs bring additional privacy concerns into play. CRPP is aware that there is a separate working group concerned with video surveillance and we hope that privacy concerns induced by UAVs will be analyzed there.