Update and new name for the Joint Unmanned Surveillance Target Acquisition System (JUSTAS) project

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From the Royal Canadian Air Force

The Royal Canadian Air Force's Joint Unmanned Surveillance and Target Acquisition System (JUSTAS) project was established to procure an unmanned aircraft system (UAS) for the Canadian Armed Forces (CAF). The project is currently in the options analysis phase.

This fall, the project's name was changed to Remotely Piloted Aircraft Systems (RPAS) project. This change is consistent with recent changes in the lexicon and classification systems of our allies, and is a more accurate reflection of how the systems are operated.

As outlined in *Strong, Secure, Engaged*, released in June 2017, Remotely Piloted Aircraft Systems (RPAS) have become integral to modern military operations. Remotely piloted aircraft (RPA) such as the RCAF's CU-170 Heron and other unmanned aircraft have been deployed on Canadian military operations in the past and offer several advantages including the ability to remain airborne significantly longer than current strategic surveillance platforms. The use of remotely piloted aircraft also reduces the risk to CAF personnel operating the aircraft from a distance and within a lower threat environment, and will also aid in identifying potential threats to CAF personnel in area of operations.

Remotely piloted aircraft will be equipped with a variety of payloads and sensors to detect items of interest in all-weather operations including into Canada's Arctic, and will be able to assist in a range of missions from persistent surveillance to supporting search and rescue, to combat operations. The RPAS project anticipates that remotely piloted aircraft can in fact be employed in all eight core missions outlined in *Strong, Secure, Engaged*, both domestically and overseas. Directly, the RPAS project supports initiatives 91 and 92, which state the government will also "invest in a range of remotely piloted systems" and "conduct research and development of remotely piloted land, sea and aerial capabilities."

The RPAS project

Although the name has changed, the RPAS project's aim remains to provide an integrated persistent long-range, intelligence, surveillance, target acquisition and reconnaissance capability. The project will operate as part of a system-of-systems network and will be capable of providing near-real time information to tactical, operational and strategic commanders to support both domestic and deployed operations, and when required, provide a precision strike capability to support operations. The project will complement existing capabilities within the CAF, such as the CP-140 Aurora long range patrol aircraft. The RPAS project is not a platform replacement.

Project phases

The RPAS project is currently in the options analysis phase:

Options analysis allows departmental senior management to make informed decision on the best way to implement a project, attempting to achieve the capability identified in a manner that is acceptable to the Government. During this phase, options are formulated, cost and benefits assessed, and a business case for the options developed.

The **definition phase** of a project marks the transition from determining *what* should be done to deal with a lack of a capability, to determining *how* the preferred option will be implemented.

A project is planned during this phase. Activities include carrying out a detailed review of the project requirements and risk assessment as well as costing and planning for the implementation phase and a preferred procurement strategy selected.

Projects in the **implementation phase** have received the approvals required to enter into contracts and commit to the expending funds and resources for the project to proceed to completion.

Initial operational capability, when the ability to employ the capability is first attained, is planned for the 2025-2026 fiscal year, based on direction contained in *Strong, Secure, Engaged*.

Project costs

Costs are being evaluated as part of the options analysis phase and will be further refined during the definition phase. The estimated cost will depend on the approved procurement strategy, infrastructure and the type of platform(s) chosen. Costs will include associated sensors, ground elements and infrastructure.

Number of aircraft

No decision has been made concerning the number of aircraft. The number of RPASs will be sufficient to meet three simultaneous lines of tasking and may be affected by the procurement strategy, infrastructure, and specific platform(s) chosen.

Economic benefits

The Industrial and Technological Benefits Policy, including the Value Proposition will apply to this procurement, requiring that the prime contractor on this project invest 100 percent of the contract value back into Canada's economy.

The Value Proposition is the economic commitment that bidders make to Canada up front at bid time, which is a scored and weighted factor in winner selection. This becomes a contractual commitment for the winning bidder. Value Proposition requirements are tailored to each procurement to allow the government to steer investments and take advantage of the unique economic opportunities offered by each project.

RPAS uses

Domestically, the RPAS will provide a strengthened ability for surveillance of the maritime and northern approaches to Canada and support to search and rescue operations. The RPAS will allow the CAF to assist other government departments in support of special security events, such as international summits, aid to the civil authorities – such as response to forest fires or floods – and Assistance to Law Enforcement Agencies operations.

Overseas, the RPAS will be capable of detecting, recognizing, identifying, and tracking targets of interest in complex environments and integrate with the systems required to process and fuse the collected information into actionable intelligence.

RPAS precision strike capability

Strong, Secure, Engaged indicates that the RPAS will have a precision strike capability – it will be capable of being armed. The ability to target and execute precision strikes ensures that if a threat is detected that it can also be addressed at that time.

As with any use of weapons systems, the CAF will operate in accordance with domestic and international laws. Operations will be conducted in strict accordance with all the controls, procedures, and rules of engagement that govern the use of force or any other weapon. All of these systems would be remotely piloted by CAF personnel who would be directly involved in the decision making process to execute a strike. However, the RPA(s) will be armed only if necessary for the assigned task(s).

Operating environments

The RPAS will be able to operate worldwide, in all weather conditions, at any time of day with the range and endurance to cover all of Canada's airspace from any suitable operating location. The system will also need to be able to operate in low-to-medium threat environments, within joint environments with other government departments, and as part of a coalition with our allies.

The Royal Canadian Air Force ensures the sovereignty of Canada through its ability to respond rapidly to any threat. The investment in the RPAS project, as outlined in *Strong, Secure, Engaged*, enhances the RCAF's capability to continue to provide agile, integrated air power with the necessary reach to fulfill any requirement asked by the Government of Canada.

Interested suppliers should direct question related to this project to the Public Services and Procurement Canada (PSPC) contracting authority.