

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
Enabling the Future - Developing the Space Workforce (5)

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GLOBAL SPACE WORKFORCE DEVELOPMENT: A MODEL FOR PARTNERSHIP BUILDING AND
KNOWLEDGE TRANSFER TO DEVELOPING SPACE FARING SOCIETIES

Abstract

This paper reports findings of the International Academy of Astronautics (IAA) study group, International Cooperation for Space Life Sciences Knowledge Sharing and Development in Africa, (2013). The study group, comprised of space life sciences experts from across the globe, established in 2010, was charged with developing a cooperative global strategy to generate partnerships for space workforce development and life sciences knowledge-sharing among space-faring and space-aspiring African nations. The study group's findings emphasize the need for cultural competencies and cooperation to develop partnerships for global space workforce development in emerging and established African space-faring countries. Our paper will present these findings, including activities of the space programs of Algeria, Nigeria, South Africa, Cameroon, Egypt, Ethiopia, Ghana, Kenya, Libya, Morocco, Senegal and Tunisia. African involvement and investment in core space activities has been limited due to a knowledge gap and challenging social and economic conditions. In recent years, though, the continent's spending on space science has increased as national governments have further defined their space aspirations and goals within the context of "space for humanity" and global workforce development. Some African countries have developed their own space agencies with well defined policies and objectives. Space workforce development efforts among these countries focus on satellite technology and ground station operation, astronomy/space science and investment in related activities that advance their specific space exploration/utilization aspirations (e.g., communication services; satellite data collection and processing, with applications in areas such as food security, health and education, crime control, environmental and disaster management, and urban sprawl; radio telescope technology; and space science education outreach and awareness). The IAA study also examines the implications of increased international governmental/non-governmental educational partnerships for workforce development and proposes a roadmap for Africa's space-emerging countries seeking to develop global partnerships to develop indigenous space workforces. The Report concludes that there are many platforms available to promote inter-regional African cooperation on space workforce development particularly in areas of space science and technology applications. In conclusion, this paper will calibrate the IAA study group's report with the IAA's report, Future Human Spaceflight: the Need for International Cooperation (2010) which outlines common global interests for human space exploration and supports the outcomes of three African IAA regional conferences on "Space for Africa."