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OUTREACH CLUB

华府青年 cyoc.club



俯瞰大地承重任 ——记参观马里兰急救中心直升机队指挥中心

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7月15号,碧空如洗、艳阳高照!由马里兰大学休克创伤中心的首席技术官、马里兰大学医学院教授胡富民博士组织的、参观马里兰急救中心直升机机队的活动如约而至!一大清早,华府青年(Capital Youth Outreach Club, CYOC)的小义工们在马里兰州亚太裔委员 APAA Commissioner, 大华府浙江大学校友基金会主席吕萍博士的带领下,一大早从 Potomac 出发去位于 Baltimore 的马里兰州急救中心直升机基地参加此次活动。所有的小义工都是第一次有机会近距离地接触直升飞机,各个兴致盎然、兴奋的心情溢于言表!

作为本次活动的组织者,胡富民教授长期致力于研发基于 machine learning 的预测算法,根据从事故现场到医院内复苏再到重症监护病房床旁的生命体征的连续分析来预测近期和长期的患者需求和预后。胡教授的实验室就位于世界第一所休克创伤中心里面,该中心是全球最大、全美最著名的创伤救治中心,也是美国三军和各大医院高级创伤医生的培训基地。该中心每年收治各类创伤患者7000余例,手术5000余例,具备世界一流的救治水平。从上个世纪末,胡教授就和马里兰急救中心直升机机队建立了密切合作关系,双方在创伤休克领域深度合作近30年,建立了深厚的友谊。

胡富民教授本人热衷于社会慈善公益活动,并利用他的专业特长积极回馈社会。胡教授曾在汶川地震期间亲赴四川进行救援治疗,在抗击新冠肺炎疫情期间更是冲在第一线,为抢救重症病人和疫情的防御做出了积极贡献。胡教授本人还长期参与并大力支持马里兰州的、包括我们华府青年在内的多个社区活动团体和组织。胡教授和大华府浙江大学校友会及华府青年的结缘于2020年疫情期间,两个团队共同对马里兰医疗急救中心直升机救护队的雪中送炭,共克时艰。

上午11点,来自马里兰大学医学院、浙大校友会和华府青年的20多位参观者准时到达马里兰急救中心直升机机队大本营,本次活动正式开始。首先胡教授代表参加本次活动的院校和团体感谢直升机机队的医疗总监 Douglas Floccare 博士对本次活动的组织和接待,并请参与本次交流学习的成员作一一介绍,现场气氛非常的轻松愉悦,我

们华府青年小义工们各个乐在其中。接下来,Dr. Floccare 详细介绍了马里兰休克创伤中心的建立、发展历史以及其中急救中心直升机机队的调度运营以及承载的任务和使命。作为一名医学博士和警察,Dr. Floccare 的讲述简洁明了、图文并茂,使得大家对休克创伤急救有了全新的认识。作为美国国内第一支民用直升机紧急救援机队,马里兰急救中心直升机机队自1970年就承担起了马里兰州的空中援救,在过去的半个世纪中,护卫着马里兰州的600万民众。他们紧遵创伤中心创立者 Dr. Cowley 提出的“黄金救援1小时”的理念,力求在最短的时间内把休克创伤病人精准地运送到最对口的急救中心进行及时抢救。直升机机队一天24小时待命,不管是烈日炎炎的夏天,还是寒风凛冽的冬天,还是狂风暴雨的台风季节,一次次的从高速公路、湍急的河流以及地势复杂的森林中抢救和搜救急需救援的伤者,平均每年运送病人7000多人次,自1970年3月份开始共计完成运送任务18万次,是马里兰州当之无愧的空中卫士!最后,Dr. Floccare 以直升机救援的现场录像结束他的讲座,每个救援现场的画面都万分惊险紧张,在场的每一位参观者都对参与救援的急救中心直升机机队的成员肃然起敬!

接下来,Dr. Floccare 又带领大家来到机库,参观了用于紧急救援的直升飞机。虽然不能用手触碰,但是这么近距离的接触直升飞机还是让华府青年的小义工们无比兴奋。他们好奇地围绕着飞机里里外外、前前后后的看了个仔细。面对驾驶室内复杂的操作系统,认真地跟飞行员提问和请教,并饶有兴趣的围观了飞机最前端的远红外摄像头。这款摄像头就是直升飞机的眼睛,功能特别强大,能从1500英尺的高空清晰地捕捉到活的生物影像,对于野外救援,特别是夜间救援非常有帮助。最后,在飞行员的批准下,大家依次登机,在机舱内拍照留念,心满意足又恋恋不舍。

本次参观活动的最后环节,也是重头戏,就是在飞行员的带领下进入到飞行模拟器。对于我们华府青年的小义工来说,这是从未有过的体验,新奇万分。明明只是站在模拟器上,可是不管是飞机滑行起飞、升空盘旋,还是飞行都感觉和在飞机上一模一样。随着飞行员的操作,高楼、街区、海港、

海湾和远处的大海,整个巴尔的摩一幅画卷在我们面前徐徐展开,感觉异常奇妙!为了增加体验感,飞行员还模拟了在体育馆上空盘旋以及在体育馆球中心降落的全过程,感觉特别棒!

下午2点,本次参观学习活动在圆满完成。我们驶离基地,远处有直升飞机不时地起飞和降落。坐在车里,抬头仰望天空中渐渐消失的直升机,感受和过去完全不同。现在我们知道,直升机救援机队的成员们从高空俯瞰大地,高度、速度和他们承载的责任并重,时刻护卫着这片大地上的每一位民众。俯瞰大地承重任,我们在心里默默地向他们致敬!

When Every Minute Matters: Lessons from the Maryland Medevac Team

By: Alber Lu

I was recently invited by Dr. Peter Hu, Professor of Anesthesiology, Surgery and Epidemiology, Chief Technologist of Maryland Shock Trauma Center, and director of the Precision Research in Medicine and Engineering (PRIME) AI Lab, to visit the Maryland State Police (MSP) Trooper 1 Barrack, one of seven helicopter stations across Maryland that are ready to provide medevac services on the call. The medevac center has offered me a profound glimpse into the critical world of Emergency Medical Services (EMS), particularly the sophisticated operations of helicopter transport.

I learned from Dr. Doug Floccare, the Air Medical Director and Emergency Medicine Physician for the state of Maryland, there about the absolute necessity of this network of helicopters. Based on Adam Cowley's "Golden Hour" concept, which originated during the Korean War, a patient who has suffered severe trauma has the best chance of survival if stabilized within an hour. As Cowley put it, EMS is a race against time: if you aren't transported to the place you need, you die. If the needed specialized materials for treating the injury doesn't arrive in time you die. For me, this showed the true immediacy of EMS:

although patients may not die on the spot in an hour, there will have been irreversible damage and death will follow soon. This network of helicopters is ready to reach any part of the state in under 25 minutes, even under 10 minutes in populated areas, and get to the proper hospital. The importance and readiness the troopers have for their job really brought me more appreciation for their actions and what they do in the skies every day.

Later, one of the pilots described to us the importance of the helicopter network throughout Maryland. I occasionally saw helicopters in the sky, but I never thought about the work that was occurring on-board, over 1000 feet in the air. The program has saved over 200000 lives from its inception in 1958, nowadays averaging 2000 lives saved per year. The huge scale of their work really moved me, seeing firsthand their impact on the lives of the people of Maryland. Furthermore, he recounted stories in other states how parents refused to let their children be transported by helicopter because they couldn't afford the 60000 it would cost. In Maryland, however, the MSP helicopter service is funded by the state, and as they put it, "nobody is going to be scared, when they see an MSP helicopter above them, because they know it's all paid for."

The pilot told his origin story about how he was run over by a truck and was rescued by an MSP helicopter. Now, he is out there saving lives via the same program that saved him. I saw firsthand the rigorous training, cautious inspections, and readiness for action that exemplified how prepared they are for these medevac operations. I felt the profound sense of responsibility, the relentless pursuit of saving lives, and the dedication that they carried with them everyday to provide these high-quality services without billing the patients. This visit instilled a deeper appreciation in me for the unsung heroes who work tirelessly behind the scenes, ensuring that critical care is always within reach for those in dire need.